342 Powers, described by Kroeber, and presumably the one meant by Estudillo with his phrase "dobladas sus puntas" was declared unfamiliar by both informants.[31] The conical house was not used here.

The house with oval floor plan and with walls arched into a rounded top was the most common type of dwelling in the valley area generally, according to J.A. and M.G. (fig. 1,a). Two forked posts linked by a tie-beam formed the basis of this structure. Upright poles of willow were set into the ground in an oval line around the center posts and the tips pulled inward and downward and tied to the center beam. Strengthening horizontal withes were tied around this framework. Large mats of tule were hung on the frame and pegged down to the ground. A slot was left along the center beam for the smoke to escape.

The tule mats which covered the frame were about 8 feet high and 10 to 12 feet long; their height roughly equaled the distance from the ground to the center beam. Truly rectangular mats were made by laying the tules alternately tip by butt to equalize the differences in their tip and butt diameters; such mats were used on side walls. For the rounded ends of the house somewhat fan-shaped mats were made by placing the tules butt by butt, thus giving a greater width at the base of the mat than at the top. Men gathered the tules, whereas women made the mats. The reeds, already sorted by size and length, were laid out on the ground. The individual stalks were held together by rows of single cords of milkweed twine looped once around each stem (a half-hitch may have been meant). The rows of binding cord were a hand-span (about 9 in.) apart. All the rows were worked forward at once rather than completed one at a time.

342 285 [284]

342 Technically, the long house was really an extension of the oval frame. There was a series of forked center posts supporting a continuous ridgepole formed by overlapping and lashing its units. The overlap did not have to coincide with an upright. Willow withes held the side poles, which were bent toward the center at their tips and were matched by a parallel withe on the exterior which held the tule mat covering in place; both withes were called tumlu''us. Smoke escaped through a long slot left at the ridgepole. The long communal house was partitioned by means of mats. Sections of the house were apportioned to sons' families, each family having its own fireplace, and, if the house were large, its own door. Such a house was "just like a street, you could look right down the middle and see everybody's fire and what they were doing" (J.A.). The long house was covered with tule mats (woi 'yohono; tule-covered house; woi 'yohon ṭi).

[592] [354]

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[31] Powers, 370; Kroeber, Handbook, 521; Gayton, Estudillo, 83.

412 The Telamni wooden mortar was described by
322 B.O., a Waksachi informant, during his discussion of trade (see Pt. II). The mortar was made from the crotch of an oak tree which, being of mixed grains at this point, was very hard. It was burned down to a rough size, then burned at the heart and the charcoal scraped and chopped out. This treatment was given inside and out until the desired size was reached. A slender pestle of stone was used with it.
[438] These mortars the Telamni sold to the lake-dwellers, Chunut, Tachi, and Wowol, preferring for themselves stone mortars of both large and small sizes which they also bought from the Waksachi or intervening Wukchumni.

Pottery

323 Pottery was not made by the lake tribes.[46] Even a knowledge of it in old times was denied by M.G., while J.A. said she had seen it made by Wukchumni women (M.P. and daughters) but did not remember how. My demonstration of the motor actions of making a "rope" of clay merely elicited a description of firemaking. Red clay
[134 was sometimes shaped with the fingers into
757] little dishes (ṭipe´kel ki´wis). It was chiefly valued as a medicament smeared on the chest.
[439] A reliable Wukchumni informant (M.L.) said that pottery was traded to the lake people.

Basketry

● 285 No detailed description of basketmaking
438 techniques was obtained from the Chunut and Tachi informants, but both had important statements concerning forms and materials. This aged Tachi informant (M.G.) repeatedly affirmed that the lake people did not make coiled baskets in old times, that the coiled pieces were obtained by trade. The Wechihit and Choinok had coiled wares, she believed, but the foothill people, Wukchumni, Gawia, and Yaudanchi were the ultimate source for lake trade. In exchange, the handsome tule mats from the lake were prized in the foothills. The Tachi, Wowol, and others dwelling in the tular used a twined technique exclusively on tule and willow materials. There is little remaining evidence of the tule wares, as they are perishable in texture and not attractive as museum pieces.

285 In the collections of the University of California are a few pieces from "Santa Rosa Rancheria, Lemoore" which might have been made by a member of any lake tribe, and a few tule baskets of miscellaneous provenience.

The following basket types were described by M.G. (see figs. 2, 3). An open conical basket (čoto´t), which might be large or small, was made of triangular tules (pumu´k). A seed

[46] Vide Gayton, Yokuts and Western Mono Pottery-Making.

285 basket made of tules was called a´nas, while an openwork one for fish also was called čotot. A stiff willow basket for seed-beating was called čama´l. All these were twined. The informant J.A. said that both coiling and twining were done by Chunut, Telamni, and Wolasi, but the technique used depended largely on the materials available. Two typical Yokuts shapes, the shouldered or bottleneck basket and the large conical burden basket, were obtained mostly by trade. The shapes which she knew and named were as follows. The circular coiled winnowing tray (tsa´pːt) and a larger, flatter tray for gambling (tai´'iwan). Two small basket types have incurved tops, one (po´mːk) has a simple curved side, the other (tsot pomːk) a flared straight side which eventually curves inward at the neck. The bottleneck basket (o´sa) was known but seldom used. The large burden basket (anas) was bought from the foothill people. The seedbeater (ha´lai) was handled. The basket cap (pukiu´was) was known to have been used in the old days, but was not an addiction as it was with women of northern California.

[482] The tumpline (tsono´lhi) and carrying net (tsuno´lus) were known to J.A., but she did not know how to make them.

The Telamni informant, T.W., whose home had been among Telamni in contact with the Wukchumni and Gawia more than with the Chunut and Tachi, described Telamni baskets as follows. Coiled types were the coiled winnowing and gambling trays (kayo´to); a large, flat-bottomed, flaring-sided basket used for cooked mush and given as a gift basket (kotčao´); and the shouldered or bottleneck basket (osa). The twined baskets were the large conical burden basket (a´ñaš); the oval, handled seedbeater (ča´'aiči); and the large, somewhat globular, cooking basket decorated with bands of red (po´dano).

The tumpline she called šu´ñlːk, the soaproot brush ṭoho´ṭ.

Blanketmaking

286 The Tachi made blankets (woi´yon, the word used for mats) of strips of mudhen skins. Rabbits were scarce in the tular, consequently blankets of their skins were obtained only by trade. The chief source was the Wimilchi tribe living up Kings River out of the tular area.

Nevertheless, rabbitskin blankets were made by the Tachi, according to Jeff Mayfield. He describes the process as a kind of looping or netting, not weaving. Variations of the blanket were used as shawls, skirts, blankets, and baby covers.[47] [text continues p. 212]

[47] Latta, Uncle Jeff's Story, 33. It is possible that the lake people with whom Mayfield spent his time were Wimilchi and Hutunutu at the lake sloughs rather than the Tachi proper.

1: Gayton E[illegible]25-1930) 1948 NS29 Yokuts NS29

[P. 18] Western Mono NS25

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ANTHROPOLOGICAL RECORDS

TWINED BASKET TYPES		YOKUTS			WESTERN MONO	
		CHUNUT	WUKCHUMNI	MICHAHAI	WOBONUCH	WAKSACHI
	close twined; always 4 red bands in plain or herringbone pattern					
1	COOKING BASKET	?	pote'na	po·no	poto·n	tapond'ĭ
	close twined; stiffened with soaproot juice	obtained from the foothill tribes				
2	BURDEN BASKET	a'nas	a'ñaš	a'naš	wo·no po·no	?
	medium open twined; handled					
3	SEEDBEATER	ha'lai	yamoki ta'myuk	ča'phai	patso·'	toneho
	fine open twined; no handle					
4	SIEVE	?	ta'myuk	ča'phai	pu''an	?
	coarse open twined; no handle					
5	FISH SCOOP AND CARRIER	?	a'pat	ča'phai	pu''an	?
	close twined; stiffened with soaproot juice					
6	WINNOWER	unknown	obtained by trade ?	obtained by trade ?	ta'a'ti^{u}a	?
	open twined; cage has lid					
7	HANGING BASKET OR CAGE	used by all tribes (native word not recorded)				

Fig. 2. Yokuts and Western Mono twined basket types.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 197] Western Mono WS25
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COILED BASKET TYPES

	YOKUTS			WESTERN MONO	
	CHUNUT	WUKCHUMNI	MICHAHAI	WOBONUCH	WAKSACHI
1 MUSH, STORAGE, OR WASHING	?	?	o'oki	sai'op	?
2 "BREAD BASKET" (MODERN)	used exclusively for storing loaves of bread (native word not recorded)				
3 INDIVIDUAL FOOD BASKET	?	ka'čao	amat	?	a·po
4 WOMAN'S CAP (SELDOM USED)	pukiu'was	woki'nits	amat	?	pi·kwo'š
5 WINNOWING TRAY	tso'pit	koiyo'to	koiyo'to	sai'ya	?
6 GAMBLING TRAY	tsi'iwan	tsi'wan	tsi'wan	sai'ya	(Patwisha) bo'gtu
7 TREASURE BASKET	little used by Chunut o'so	o'so	o'so	o'so	?
8 GIFT BASKET	po'mik (8 and 9 are shapes made by the Chunut and probably by other Lake tribes)				
9 TREASURE BASKET	tsotpo'mik				

Fig. 3. Yokuts and Western Mono coiled basket types.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29

[P. 46 b] Paleuyami

622 Martha Altau's paternal grandfather, Owo´tono, was chief at the Paleuyami village of Altau. Her father, a Paleuyami, lived at Fort Tejon, then moved up to Tule (Yao´wɨtsani), where M.A. was born. A man named Mo´lpi was chief there. Her mother, Cowi´yɨt, was yo´weked, "from near Visalia," which I interpreted as Yokud. When M.A. was about fifteen years old they all moved up to the present reservation. M.A.'s information is not, then, strictly Paleuyami, but refers to the mixed culture, which was nevertheless essentially Southern Valley, manifest at Tule, a reservation near the present site of Porterville.

342 The house types she recalls at Tule are those of adobe or boards.

323 Pottery she had seen, but never saw anyone make it. Her mother made only baskets. One 285 woman, named Insi´ʔɨn (Jennie), a Wakastmina (Waksachi), once brought a piece down to Tule.

BURIAL

764 At death the corpse was washed with cold water and a piece of old deerskin. The hair was washed with soaproot, dried, brushed, and arranged. All the best clothing and ornaments were put on it, and it was laid on deerskins in the center of the house, behind the fireplace, with the head toward the west or northwest (most houses faced south). The corpse was flexed, tied, and wrapped in deerskins at this time, and left in the same place and position. Anyone who wished might visit it and join in the wailing which was carried on all night. After the corpse was removed for burial, the house was burned. In the new house where they went to live, jimsonweed and a plant called golpo´pi[109] were burned to repel the spirit of the deceased.

767 838 Meanwhile two men and two "women" (the latter transvestites, tono´čɨm) had dug the grave, using digging sticks and baskets. If, while digging, they came upon another burial, 767 it was necessary that they crush the skull, remove the brains and taste a bit of them, other- 764 wise they would die.

The following morning at dawn, the strongest of the four buriers[110] carried the corpse in a net on his back to the grave. He walked around the grave three times before lowering his burden. Then he addressed the deceased, saying, "You're going where you're going; don't

[109] This plant "smelled strong and had lots of balls on it."

[110] Such a carrier was W.li´hana, whom M.A. recalls.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 539] Tubatulabal NS22

T Y 796 276

If some boys wanted to take jimsonweed, they would announce the fact in early winter (about December), and then abstain from meat and grease for the next two months. During this period they remained quietly about home, neither hunting, playing, nor participating in social affairs. About two weeks before the drinking, a doctor would retire with the boys to a private camp, where he instructed them in deportment, how to address jimsonweed when praying. Boys who participated were about sixteen and, according to F.M., were expected to remain continent for about three years. The retreat lasted two or three days, and on emerging, they set the day for the drinking twelve days in advance.

I Y [833]

Each boy had a sponsor whose duty it was to prepare the drink for him. These were men who "knew how to do it and had taken jimsonweed themselves." When one was digging up jimsonweed, a prayer was made, and eagle down would be sprinkled on the plant in order to obtain a large root. The size of the root does not correspond at all to the size of the plant, or the ground might be hard, or stones might interfere: the prayer and down obviated all these uncertainties. A man always went to the same spot to obtain the roots. The roots were mashed, added to water, and boiled a little.

The boys and spectators gathered in the early morning. Each boy was provided with a large coiled basket which held about one to two quarts. The basket was made by the boy's mother or, if necessary, bought, as it had to be of fine workmanship. It was received as a gift-payment by the sponsor, and after the ceremony could be used for any purpose. The sponsor held the basket to the boy's lips; the boy must not touch it; he must finish it all at one draught.[134]

J Y ● [285 431]

A man who was in charge of the ceremony made one prayer for all the participants. Neither F.M. nor S.G., the interpreter, could state what this was, save that he "called on Sun, Eagle, Cougar, and all those big ones" to give the drinkers good life and protection. Meanwhile several good runners and a "loud shouter" were assembled, and these, with the shouter leading, and the drinkers ran three times around a specified circuit. If a drinker fell before the laps were completed, his life would be shortened by so much.

When the drinkers became unconscious they were laid on deerskins or tule mats with a woman at the head and feet of each. By evening the coma began to wear off, and the women sang songs to rouse the boys. Toward morning they became voluble and made their revelations: people assembled to watch and listen. The drinkers could see people who were far away, and could see, too, who was traveling. They

[134] Although the basket might hold as much as 2 quarts, the amount drunk was not specified by F.M.

342 be three or four, above it. The topmost band was actually a small ring about 18 inches in diameter inside the pole tops which were spread apart by it: it served as a smoke hole as no covering was placed above it (fig. 5, a, b).

The thatch covering was made by twining together in long sections small bunches of fine willow or long fine grass. The grasses were placed head downward the better to shed water. These skirtlike sections were held in place by long willow strips running around outside of and parallel to the inner horizontal frame bands. The exterior band and thatch were bound to the interior band with ho'. An upper layer of thatch overlapped its lower neighbor by about one foot. When a house leaked, which was claimed to be only in prolonged rainstorms which soaked the grasses, a bundle of thatch or a tule mat was fastened over the weak spot.[353]

[285] A panel door was made by tying a specially made mat of tule or willow to a framework of willow or young alder. Normally this leaned against the house at one side of the doorway, but in bad weather, the only occasion for its use, it was tied over the door from the inside. Skins were not hung over the doorway. Storehouses were supplied with little doors tied on from the outside.

[354] The fireplace was always in a small hollow in the center of the house. In the summer, 342 however, domestic fires were most frequently built outside under the ramada. The floor was 352 covered with tule mats, several of which were piled together to make comfortable sleeping places. Baskets, articles in frequent use, and valuables were stored around the outer edges of the room. Cooking stones, stone-lifters, and mush-stirrer remained by the fireplace. Overhead one or more rods, whose ends rested on the horizontal frame bands, served as a place to hang articles; a special kind of hanging basket was made for this use. Small valuables were often hidden in the upper thatch or between mats. (M.L., J.P., S.G.) The most desirable [574] place for sitting during the daytime was just inside the door. At night, and when sleeping, a guest was placed at the center back.

342 Mats were rarely used on a conical frame as they were not readily adaptable to its shape. 285 They were twined of fine willow or tule, varied from 2 to 4 feet in width, and were about 6 feet long. Four or five mats were needed to cover a house of average size; they were tied on with milkweed string. Such mats could be removed from one house to another and were convenient to roll up and take to summer camp. One informant (M.L.) stated that tule house mats were sewed, not twined, a method

[178]

[353] No native-type houses are in use today. Two normal-sized but poorly built grass thatch houses, which had been made for show purposes, were seen by the recorder at Squaw Valley in 1927. They had been built by Chukaimina living there.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29

[P. 64 a]

342 which Kroeber mentions for Yaudanchi and the lake peoples.[154]

285 The oval house was also frequently built in the lower foothills. Most of the houses at the Wukchumni village of Gutsnumi were of this

342 form, as were those of the Gawia and Yokod though they did not reach the extreme dimensions of the lake region long houses.

To start construction two forked posts were erected and a ridgepole laid between them. Side and end poles with pliable tips were braced in the ground at the periphery of the floor area and bent toward the ridgepole to which their tips were lashed with ho'. As with the conical house, horizontal side braces were lashed on. The oblong house was never thatched but was covered with twined or sewed tule mats.

These were tied to the framework and, in expectation of stormy weather, were bound down by a lashed on, outside withe. No smoke hole was left, the smoke merely escaping through the rough slotlike aperture along the ridgepole. [184] The oval house of the Central Foothills was not usually divided into compartments as it was in the lake region.

The bark house was of necessity smaller in size than the thatched or mat-covered type. Kroeber's unlocalized description of the bark house may serve here, as this structure was not well known to Wukchumni informants.[155]

A bark house of similar type [conical] is called asmiah. Sometimes bark is first leaned against the framework as a partial covering,

[154] Handbook, 521, 522.

[155] Ibid., 522.

343 The ramada or shade, čɛ́ ́niu (Kroeber, ch'iniu), was constructed of four or more posts set in parallel rows. Beams were laid between them, the whole covered with more cross poles, and finally masses of tule or willow brush were laid on top.[157] The ramada was not always in front of the dwelling house, but in the Central Foothills was as often at the side. This structure, so simple and so necessary in the summer heat of the region, has been adopted by white settlers throughout the San Joaquin Valley.

343 251 Storehouses and bins.---A prosperous family of average size had at least one storehouse erected close to their home. This was a small replica of the conical dwelling, save that it had a floor of logs raised off the ground to prevent moisture from settling in it. This form of storehouse is not to be confused with the small acorn storage bins or "granaries." In it were kept baskets, pottery, and the supplies of dried meat, dried fish, seeds, shelled acorns, and other foods in immediate use.

There were various methods of storing the major portions of the acorn crop. Sometimes pits in rocks were filled with acorns and a small, conical, grass-thatched shelter was erected over them. Or if nothing better could be contrived, acorns were stored in hollow trees. The best and commonest method of storage was in a barrel-shaped "granary" set upon a flat, water-shedding rock. Four to six uprights were held in place with horizontal split willow bands.[158] This was lined with a tule or fine brush mat, and the bottom, i.e., the rock surface, packed with fine grass. When the bin was filled with acorns, a grass or tule thatch was bound around it, and a kind of conical "hat" of the same material was set atop. Such bins were usually large: a woman would have to stand on the horizontal bindings in order to reach into them. When the supply within became lowered to the point of inconvenience, the owner would tear a hole in the bottom and remove the acorns through it. (M.L.)

[285]

[674] [621] Food was rarely, if ever, stolen from these granaries. Should a family run short of provisions, more acorns would be bought from someone who had plenty or, were the family really poor, the chief would see to it that they were fed.

Dress

291 The breechclout was worn by both men and women. Usually it was of deerskin, but prefer-

[171]

[157] An excellent picture of a shade of similar type is shown by Kelly (Ethnography of Surprise Valley Paiute, pl. 18, c).

[158] The Miwok "granary" shown by Kroeber (Handbook, pl. 38) has a frame work of similar type, but the Yokuts form, for at least the Central Foothill region, lacked the center post and raised conical bottom.

291 available. Large tules were pulled into strips;
286 they and whole small tules were pounded with a wooden stick on rock (usually the bedrock mortar where good working space was provided) until softened and pliable. Any of these materials, when made into aprons, was twined along one edge with willowbark string (ša'). One row of twining held the fibres together; a second, below the first, included the bent-over ends which had been turned down on the outside. Both rows of twining continued into a twisted two-strand belt. When asked why two aprons were made rather than one continuous skirt, M.L. said the back "wore out too fast"; hence the replaceable sections.

292 On dress occasions aprons of deerskin (ki´nap) were worn, sometimes put on over the fibre aprons (fig. 8, b). The front apron of deerskin was edged with deer hoofs which rattled prettily. Not all women could afford these. M.L. spoke proudly of having such an apron which her mother had made for her first puberty ceremony. Women whose husbands were poor hunters or had other vocations bought deerskin and hoofs for themselves.

291 The basket cap (waki´ñuts) was always
285 coiled, of a shape similar to the small individual mush basket. It was used only when carrying a heavy load with the tumpline (M.P.). While the cap is said to have been invariably coiled, a museum specimen (U.C. 1/2958; no provenience other than Yokuts) is a small, diagonally twined "bowl" (7-1/2"x 8" diameter at rim, 4-3/4" deep), palpably old and undoubtedly a cap. Its rim is bound with buckskin and is patched with buckskin at a point where a tumpline would have worn it. It is patterned with a wide band of double zigzag at the edge and a band of single zigzag near the base. There is no other piece like it in the Yokuts collection and it is presumably introduced from an outside source, possibly Miwok or Pomo. The attempt to preserve it by repair even suggests that it might have been valued because of its oddity among the Yokuts.

301 Ear ornaments (po') were differentiated from men's only by having two long strands of beads added; they were then called yau´wakan.

302 Women's hair was long save during the period of active mourning, when it was singed close to the head if grief were deep, to the shoulders for a lesser bereavement. Like men's it was parted in the middle and, at work, was tied at the nape of the neck, but the front hair was usually singed off to form bangs. Both sexes washed the hair with soaproot suds and brushed it with soaproot brushes.

237 On special occasions eagle down was stuck
381 on the bangs and fore hair with soaproot glue.
292 An ornamental headband (hoči´n) worn by women was woven of fine milkweed string by the usual "sewing" technique for belts and had beads introduced to form a diagonal pattern. The band was 2 to 3 inches wide, long enough almost to

412 nobby upper end by capping it with boiled soaproot and tying over this a piece of buckskin.
322 Weights were never added.

The soaproot brush (čine ʔil) varied in size from small ones some 4 inches long to large ones of 9 inches.[192] They were used variously for brushing up meal when preparing foodstuffs, or for brushing the hair. Hair-
[302] brushes were large and made of coarse fibres which have hook-like tips. One in a family was sufficient. The root to make a brush was dug after the flower had faded when the fibres around the root had reached a maximum toughness. The plant's top was torn off and the fibres carefully removed from around the bulb. The bulb was boiled in water until it became a plastic cream-colored mass. The fibres having been arranged as a brush and so tied, the bulb mass was pressed and shaped over the end as a handle and tied in place with several wrappings
[314] of string. The liquid from the bulb was viscous and was applied to burden baskets and cradles, where it dried as a practically colorless stiffener.

415 The set of rock lifters consisted of a pair of straight sticks and a looped one. The looped lifter, commonly called mushstirrer because one must necessarily stir about in the mush to find the cooking stones, was made of a peeled withelike stick, heated over coals and then bent around the foot to form a loop. The double handle thus formed was tied with a milkweed string or with a thong (see pl. 1, right verticals). Wild grapevine withes were used for a light type of lifter which was peeled, looped, and tied while still green and flexible. Two sticks from Drum Valley are made of bent young oak and, according to the collector's notes, are tied with the inner bark of oak.[193] Although these looped sticks were used to extract cooking stones from food which was being boiled, the hot stones were lifted in with a pair of pine sticks flattened out at one end. As these were often charred they were not allowed to touch the food, and hot rocks to which ashes clung were dipped in water on their
[439] way into the food. The best hot-rock lifters were of pine and were bought from the Eastern Mono, who made them for trade. A medium-sized basket (8 to 12 inches in diameter) of simple flaring type was considered a suitable payment in return.

285 The "set" of baskets comprised six types
482 essential for food-gathering, preparation, and cooking. (See figs. 2 and 3.) The large conical burden basket (a ñaš) was of split willow. It was diagonally twined, of close work, and was stiffened with soaproot liquor. Because of

[192] Those collected by Dr. Barrett and now in the University of California Museum of Anthropology.

[193] University of California, Museum of Anthropology, nos. 1-10846, 1-10848; Dr. S.A. Barrett, collector; cf. Kroeber, Handbook, fig. 38.

285 the soluble stiffening nothing wet was ever put
482 in it. The apex of the basket was protected with a piece of buckskin sewed on like a patch. Loops to which a tumpline was attached usually hung from the inside about one-third of the way down the sides; sometimes they were on the outside. The burden basket was used primarily for collecting seeds and acorns or other vegetable materials and was kept very clean. Joints of meat, dirty roots, fagots, or pottery clay (wrapped in buckskin) were carried in the carrying net. (The carrying net was primarily a man's possession. They were made by men and sold to women. Women could make them and also were free to use them when available.) A kind of companion piece to the burden basket was the seed-beater (yama´ki). This was a handled
[222] scoop of fine openwork twine. When used as a beater the burden basket was held beneath the beaten plant tops to catch the seeds; another method, preferred when possible, was to keep the burden basket on the back, knock plant heads or seeds into the scoop-shaped beater which was then cast back over the left shoulder so the seeds fell in the burden basket. Another type of collecting basket was a large, oval, very openwork twine scoop (a´pot) for carrying fish; smaller ones of the same construction were used to catch fish in the water. Two baskets used in the preparation of food were the coiled winnowing tray (koyo´ṭo) and the sieve (ta´myuk) which was of fine openwork twining; it was very like the seed-beater but
285 lacked a handle. The cooking basket (pota´na)
415 was invariably of twined weave, coarse and close, and had four horizontal bands of redbud worked in a plain or herringbone pattern. All these baskets were essential. Naturally, more than one, and varieties of size or coarseness, were desired even among these six types. Another basket for food was a large flaring basket (kača´o) of coiled technique in which cooked mush was stored, or other cooked foods; it was also watertight so that water for cooking or washing might be put in it. Small coiled serving baskets (also called kačao) with flat bottoms and flaring sides were used as individual eating baskets for each member of the family.

285 Additional baskets, which every woman might not own, were the coiled basket cap (waki´n:ts) used only under the tumpline, the large, flat, handsomely patterned coiled gambling tray (tai´'iwan), and the shouldered ornamental basket (a´ma) which was used by both sexes for the storing of treasures and cherished as a treasure in itself.

323 Not every woman owned pottery cooking
415 vessels (ki´w:c) but all did who could make or afford them among the Central Foothill tribes. Most housewives wanted two large ones for boiling meat and fish and a few smaller dishes for keeping or serving food. Children were not allowed to eat from pottery dishes.

321 412 Deer bone awls (poa''uk, M.L.; ap''up, M.P.) were wanted by all women who made baskets and, as there was no tabu on their use for any convenient purpose, others owned them as well. About three sizes were wanted, ranging from 3 to 6 inches.[194] They were made by men from deer fibulae (see pl. 1, floor center).

324 412 An assortment of obsidian blades, also made by and bought from men, was wanted for cutting meat, scraping foodstuffs and basketry materials, and cutting hide.

428 [584] 285 431 Women came by these possessions in a variety of ways. When a boy's family approached a girl's family with betrothal gifts, a burden basket was frequently included as this was an object of value and a type which a young girl could not make for herself. By the time she was betrothed, however, a girl usually had already made herself smaller twined and coiled ware of the seed-beater, winnowing tray, and sieve types. Her mother or aunts (of either side of family) would make her additional baskets, particularly the twined cooking basket.

428 [764] [437] Girls or women inherited from their mothers many of these household utensils; but it was said that "there weren't so many of these" (M.L.) by the time a few things had been put with the corpse and the rest were divided between daughters and claimed by the mother's sisters. Again it was impossible to formulate a rule whereby these objects were gotten or inherited. Women bought utensils and tools from each other and also from men. A woman's husband was expected to supply her with meat and skins. The latter included deerskin for the dress apron and, if the man were a poor hunter and could not procure them himself, he might even buy the deerhoofs used as a decorative fringe on the apron.

Medicines

757 278 The two plants used for poisoning fish (yaoha and tadad) were also used medicinally. The first, for chills or headache, was mashed in a poultice; the second was boiled for use as a steam bath for chills or to soothe the vaginal tract after childbirth.[195] Neither plant was actively poisonous as fish stupefied by them did not need any special treatment before being eaten.

Black paint (ka'di'an) was mixed with grease as a salve. It was applied to sore

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[194] Thirteen awls collected by Dr. Barrett from Michahai, Choiniumi, and Chukchansi territory, now in the University of California, Museum of Anthropology, range in size from 3 inches (1-10839) to 7 inches (1-3997). Three unfinished awls from Drum Valley (probably Chukaimina or Michahai) are 5 3/8, 5 1/2, and 7 3/4 inches (1-10850, 1-10838, 1-10837).

[171] [195] The Miwok used vinegar weed (Trichostema lanceolatum Benth.) as a steam treatment for "uterine trouble" (Barrett and Gifford, 174).

281 286 long, was kept in a hank of folds about four inches long held in the right or left hand as need be. Work commenced at the top right. The weft was passed through the adjacent twists as described above. When the bottom was reached the loose ends of the warp were tied together. The loops at the top were slipped off the pole, were given a couple of twists, and were sewed across as elsewhere in the blanket.

The frames were set up outdoors, and blankets were made when there was no danger of rain (April to November). There was no rule or belief that they should not be made at other seasons, the matter was controlled entirely by the prospects of the weather. M.S. insisted that only men made blankets. It is conceivable that this was so in her father's time, but that Mission influence led to women's weaving.

A third method of weaving rabbitskin blankets was described by the elderly blind Wukchumni informant, M.L. She stated that the double twisted ropes of rabbitskin were tied together to form a long continuous rope. This was wrapped round and round a two-pole upright frame. The lower pole was held down by pegs which were loosened as the blanket grew more taut. The weft of string was "sewed" across through parallel twists as above. Back and front warps, caused by the breadth of the frame poles, were pulled into a flat position beside each other.

Tule Mats

285 The word ṭ·ñi was used for any sort of mat; if one of tule were meant specifically, it was called su''iu ṭ·ñi. Those for houses were made of the large triangular tule (pumuk). These reeds were laid out closely side by side on the ground, with stem ends alternating, in an amount needed for a mat. The worker started at the left-hand corner nearest her and, placing her right foot across the first three or four reeds and kneeling on her left knee, ran a thread of čitᵘk string in a deer-bone needle through each successive stem. This meant that the needle was held in the left hand while the right hand forced the tules onto it (M.L.). (Unlike European sewing, the needle was a passive instrument when used in this manner.) The sewer moved onto the tules as she progressed, and started back from the opposite end for the next row of stitching. The rows were about a foot apart.

[516] Sleeping mats and floor mats were made of the smaller round tules (šu'yu). The worker sat in a favorite Yokuts woman's position, with left leg forward and knee slightly raised, the right leg doubled sharply at the knee, the foot under the left thigh.[196] A pair of tules was

[196] The posture when working at the bedrock mortar (see fig. 6, herein), or at leisure (the normal posture of M.G. and M.L., who always sat on the ground); cf. Holmes, pl. 30.

285 taken up and tied in four places with long strands of string which were to be the twining wefts. The tules were added in pairs. Twining progressed over some six to ten tules in the first row before the string was tied in a single knot; then twining was commenced on the second, third, and fourth rows and continued in the same manner. The manipulation is shown in figure 12. While the first finger of the left hand held down one string which was turned back over the last pair of tules, the second and third fingers held the pair just being inserted by the right hand. The next move was to bring the loose string up over the latter pair, and have it replace the taut string which was released to become the next binding element. A well-finished mat would have a three-ply braid of fine tules sewed on all around the edge.

[516]

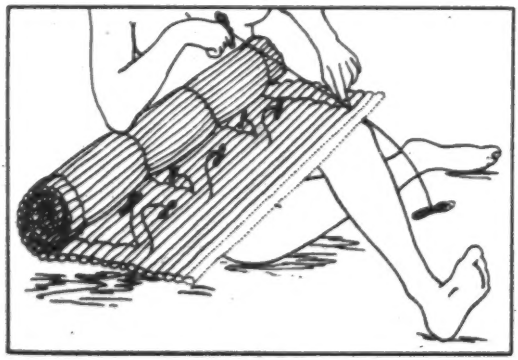

Fig. 12. Wukchumni method of twining small mats. Left hand about to press down on tightened wrapping, freeing right hand which will place next two tules (dotted in position) and pull under string up over them.

The same technique was used for all household mats, babies' mattresses, casings for feather ornaments, etc. Women invariably sat on mats when working outdoors in front of their homes (M.L.).

Flat tule (kots, "cattails") were little used.

Cordage and Nets

283 The strongest cord or rope (ho'), which was employed for all heavy purposes, was made from the inner bark of the button willow. Trees were ringed by means of an obsidian blade at intervals of three to five feet, depending on whether one or two sections could be gotten. The ringing and stripping were done in the fall. The inside bark peeled off readily after it was removed from the tree. It was laid out on flat

286 was being formed. The process was continued as far as desired, say some 3 feet, bringing the worked part to within about 2 feet of the ends. The very loose twisting there permitted the 8 cords (of the 4 doubled warp cords) to be laid side by side, and the weft cord was drawn through the original turns in these two-ply cords, making a finer but equally broad textile (fig. 13, f). This continued for 6 or 8 inches; then the weft cord was broken off at a length equal to that of the warp cords. There were then 9 strands which were grouped into threes, braided together to the end, and tied with a couple of final knots.

At the opposite or closed end were the loops which had been left in the cleft stick at the start. A weft cord was inserted a few turns below this, then worked up, turn by turn, until the beginning of the loop was reached. From here on the weft was carried through the original turns in the 2-ply cord, as at the other end, until the loop was woven solid. When finished, this loop was about 3/4 of an inch wide, the band itself about 1-1/2 inches. The loop end was fastened to the carrying net by means of the cord rings, as mentioned above. The free end of the tumpline was tied to the opposite cord ring of the net and adjusted as need demanded.

[302] Headnets were made of fine milkweed twine, presumably by the same technique as the coarser carrying net. The only one seen was a Choinimni specimen made of grocer's string.

286 Belts were worn by both sexes for supporting the breechclout, a plain variety for ordi-
291 nary use, a beaded form for gala dress. The technique was the same "sewing" process, but the looped end was cut open and the ends grouped in threes and braided as at the loose end. The fancy belt was made of the finest milkweed cord. The weft thread carried a clamshell disk bead at each point between the warp (see fig. 13, g). Such a belt was called koikoi''ič, in reference to the beads.

283 Sinew string (pikit) was made only by men. Its most notable use was for bowstrings; other uses were the feathering of arrows and fastening of arrowpoints, the tying parts of fish spears and harpoons, wrapping feathers on earplugs, sewing hide, tying the umbilicus stump. For the method of manufacture see Michahai-Waksachi (Pt. II).

Basketry

215 [121] Practically no information on basketmaking was taken, since the art was in no danger of extinction and it was hoped that some investigator would undertake its special study. Yokuts basketry technique was highly refined, and the Wukchumni today still produce some of the finest examples. Some general remarks on Yokuts basketry are made by Kroeber, and their

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285 materials have been analyzed by Merrill.[200] In the present paper under the heading "Woman's Household Equipment" is a description of basket types; a comparative display of shapes and techniques is shown in figures 2 and 3, and plate 1 shows a typical collection of Yokuts baskets.

[461] The informant M.L. said that not all women made baskets: "anyone could learn that wanted to but some were too lazy."

All Yokuts coiled baskets were made on a multiple-rod foundation, the favorite material being a grass called toša´k·s. The wrapping was usually a split root called ho´pat, which came in 4- to 6-foot lengths. The outer bark was scraped off and the interior split into two parts by holding one half in the teeth and splitting the other away with the fingers. K.G. started a coiled basket for demonstration.

To start a coiled basket a piece of the wrapping material about four inches long was shaved down to a point at one end. This end was rolled into a tiny coil, the loose end projecting to the maker's right. Another short piece of the same material and of fine grade (i.e., split thin) was set with one end under the turn of the coil and held in place with the fingers of the left hand. The coil, with inserted binding, was of a size to fit securely within the worker's left thumb and forefinger. The right hand began the wrapping process. The free end of the wrapping was poked repeatedly through the center hole of the coil with the aid of an awl until all the coil was wrapped and the center hole filled. By this time the first round of the coil had been made and the next wrappings were passed around the turn of the foundation "rod" between the previous stitches: a skilled basketmaker did not split even these small beginning stitches. Now a transition was made from the single foundation to the multiple-grass filler which would continue throughout the rest of the basket. This was done by inserting a few grasses under the end of the single "rod," and more and more were added as the coiling progressed until the desired foundation thickness was obtained.

The loose ends of the foundation grasses, which jutted out to the right from 2 to 4 feet, were kept under control by a small ring of the wrapping material (nowadays more often a twist of string) which could be slipped up and down the bundle of grass stems and through which each new grass was inserted before its butt was poked in under the last turn of wrapping. Only one grass was added at a time and these at about three-inch intervals, depending, of course, on the dimensions and coarseness of the basket under construction.

Work progressed from left to right (clockwise) from the worker's point of view, and for

[200] Kroeber, Handbook, 531-533; Merrill, Plants Used in Basketry.

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all coiled shapes save the flattish trays the working edge was that nearest the maker, which was the outside of the basket. On the open flat trays whose upper side was the seen or "best" side, the work was done on the far edge of the basket, the work still progressing from left to right. On a certain type of small flaring bowl, the inside and outside of which were about equally visible, the work might be done either way the maker preferred. The fact is that most Yokuts workmanship was so skilled that both sides of a basket were equally perfect. Split stitches were the mark of poor workmanship; it was also claimed that the coiled stitches were never interlocked.

Ornamental materials were split redbud bark (a´nap), which varied in color from a rich maroon red to a chestnut brown, and a black root (mono´hač). When a pattern was to be introduced, the plain wrapping was cut off and fastened, and the colored wrappings replaced it. This method was always followed even if only one or two turns of the colored binding were needed. In other words, there was only one layer of wrapping. No double-wrapping, overlay, or imbrication was used. An especially fancy ornamentation was that of quail topknot feathers applied at the edge of the shouldered or bottleneck basket. The quill end of the feather was inserted under the turn of the wrapping with its tip to the left where it was held down with the thumb of the left hand while the binding stitch was drawn up. In this way it slightly overlaid its predecessor and did not project forward in the way of the worker's fingers.

Kroeber shows eighteen basket designs to which I can add only one called "waves" which is said to represent the billows of Tulare Lake.[201] This may be seen in plate 1 in the feather-edged basket toward the lower left and in a large flaring basket directly above it. The pattern at the bottom is the more usual rendition.

Cradles

In old times the cradle, with forked-stick foundation and tule mattress, was used exclusively in this region. The tule mattress, which has been thought of as a separated cradle by ethnographers,[202] functioned as such only on the borders of the lakes, where sound wood for frames was scarce. A permanent twined tule mat was affixed to the frame, but another, larger one, was added with the baby when it was on the cradle. This larger mat was really a mattress in which the baby slept at night, still lashed in it. When put on the frame, the

[201] Handbook, 533. A story of the origin of basket designs is recorded by Latta, California Indian Folklore, 75-79.

[202] Kroeber, Handbook, 534, pl. 40, g.

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poison is real or imaginary I could not discover.[255]

Airshot.--Shamans of any standing were believed capable of sending intrusive objects into other persons. Such objects were called by the word for arrowhead, tu'yoš, in English, "airshot." Properly speaking, airshot is the invisible shot which shamans used in the Shamans' Contest, but the English and native words are used loosely for all intrusive objects. These objects might be grains of sand, a beetle, a cougar's whisker, or a shaman's own beard hair, fingernails or seeds. "Some kinds of shot knocked you down while others hardly hurt at all. The same doctor could make [i.e., propel] different kinds" (S.G.).

All shamans used a basketry tray (tai'iwan, Wukchumni, bo'gtu, Patwisha), similar to the woman's gambling tray but larger and handsomer, as the basis or foundation from which the shot was propelled. The shot was set off either by blowing across the tray or slapping it face downward on the ground.

The invisible airshot was derived from the sun. It was made from nothing (i'a'měi, lit., nothing). The shamans prayed to the sun, grabbed toward it with the hands, and then rubbed them on the tray where the shot appeared looking like buckshot, fish eggs, seeds, pebbles.[256] This all disappeared when the shamans again rubbed their hands over the tray.

According to J.P., this same airshot could be transformed into living creatures. Thus a shaman would "blow airshot off his tray and it would change into an owl that went and talked to the doctor's victim. Sometimes it would be a coyote -- they are mean just like owl." While owls and coyotes are the customary servants of shamans, other informants indicated that these were living animals, not magically created ones, which were under shamans' commands.

Transformation.--The Wukchumni believed that persons with supernatural power, not necessarily shamans, could transform themselves under conditions of great stress into the form of their animal dream helper. (See Holoanči's experience, above, and Anecdote 4, below.)

Bear transformation was believed possible for persons of the Bear lineage, provided they had dreamed of Bear and had sufficient ţ:pni to accomplish it. Men did this, never women. It was not a common practice and I could secure no stories or anecdotes concerning it, and at least one informant denied it in toto.

Flying power.--The power of flying through space, while mentioned, was only incidental. Thus in an escape, for example, the distressed person suddenly found himself a safe distance away from his threatened danger. The power

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[255] Vide J.P.'s experiences, Gayton, Yokuts-Mono Chiefs and Shamans, 403.

[256] Whatever similes informants used in attempting to describe airshot, the common element was a granular aspect.

796 825 Then people began shouting for the "biting" display. "They would put up $50 to $60 for this." The doctor who was daring enough threw his snake to the ground to anger it. It would turn toward him and bite him. The arm was extended, so that the snake struck high in a spectacular manner; the reptile was displayed dangling by its fangs from the doctor's arm.[273] Then the other doctors sucked the wound and spat on a tray, and the victim recovered at once. This ended the ritual, usually about 5 p.m.

The feast provided by the doctors was then eaten. They, of course, received the payment in the pit. The next morning they returned the rattlesnakes to their respective dens.

J.P. said "the worst he ever saw" was a doctor whose snake struck him three times. He was given the sucking treatment and lived, but he remained unconscious until the following morning.

J.P. said the "sun snake" was more dangerous than the rattler. If a doctor wanted a sun snake, he "held his tray up to the sun to get power" (this at the time he was seeking the reptiles for the ritual).[274]

224 The informant Tm.W. had seen Pušl:l:n get snakes for a dance at Maät:nao (a Chukaimina village). He went out with a bone whistle. When the snakes heard it they "rose right up in the rocks and were told to 'Come on!'" As a snake turned away, the doctor grabbed at the back of its neck. He put it in a willow cage called čo´m:s. Tm.W. had also seen Solopono do the Rattlesnake Ritual at Porterville, but this informant was not equal to describing it. A rattlesnake was called pu´čuš tu'ud (little rattlesnake) or m:ts tu'ud (big rattlesnake).

796 The Rattlesnake Ritual was held by the Yaudanchi at Moko early each spring. Several doctors participated. Those M.S. recalls were her stepfather Kipat (Patwisha), Čokon:k (Choinimni), Umičana (Wukchumni), Čiw:n (Wukchumni), and Šu·t (Gawia). Each man had a snake which he had obtained at its den. This informant's description of the rite differed from others in the following respects.

During the dance the coiled snake was held out on the palm of the hand, or was wound around the neck "like a muffler." There was no "biting" display. Each doctor had a hole for his own snake; the people who filed by paid each snake by dropping in a bit of money, stamped at the side of the hole, and passed on.

●[285] While in captivity, the snakes were kept in bottlenecked baskets (osa) instead of cages. A pole (wi č:t, any stick or pole) was set up beside the dance space and gifts of baskets for the doctors were hung upon it. The doctors

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[273] I do not know whether this "dangling" is physiologically possible for the rattlesnake, but Kroeber reports the same action (ibid., 505).

[274] M.A., the Paleuyami, said her father "made snakes come down from the sun."

769 the effigies and all their treasures at the reciprocants who scrambled and fought over them. Whatever anyone seized was his. After this the dolls were stripped by the gu'ni who threw the frames on the fire: this was their duty. Sometimes more or less worthless objects were thrown with them. But anything so dispatched to the fire might be snatched out by another reciprocant.

Ritual Washing

769 By this time dawn had come, and the reciprocants went to eat breakfast and prepare
783 for the later feasting while the mourners again retired. Then the reciprocants' winatums got baskets of water which they took to the assembly space where the washing families had come with their supply of new clothing for the bereaved. The water baskets had been especially made for the occasion; they were coiled, large,
● [285 171] deep, and flaring (pl. 1, top center). Those the Wakachi (and other Western Mono) provided always had somewhat peculiar patterns which no other baskets carried.

The winatums called the mourners and, these being allotted by families as explained above, the ritual cleansing proceeded. Members of the same sex washed each other. For these true or deep mourners the washing of body and hair was complete, the washee, stripped to the breechclout, standing beside the basket and being swabbed down with wads of shredded willow bark dipped in the water. Fresh water and soaproot were used for washing the hair which was then dried, brushed, and trimmed with bangs.
[301] The new clothing, including a new breechclout, was donned. Ornaments such as ear plugs,
[465 431] necklaces, and headbands were added. The washers were each paid a small sum (about 25 cents) and given presents of baskets by the washees. Then all persons of the mourning tribe had their faces washed by members at large of the reciprocant tribe. They all stood in a long line for this service. The washers each received about five cents (in bead money) for this.

[522 613] During the washing and dressing at least two men of the Coyote lineage came in clowning.
[237] They wore coyote skins on their heads and backs, with the snouts stiffened out and with artificial tails attached. They carried seeds which they threw all around [the purpose of this I could not discover], got in people's way, knocked over the baskets of washing water, and were chased about by the winatums.

769 Then a feast was held, the main dish of
[269] which was deer meat, for this was the end of the meat tabu for the bereaved. The reciprocant chief made a speech telling everyone to come partake of this feast, the mourners to enjoy their meat, etc. After the feast the host chief made a speech saying that now their sorrow was dissipated, that everyone should

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 140] Miwok NS 16
Western Mono NS 25

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Explanation of Plate 1

Yokuts Specimens in Case 76, Room 15, Peabody Museum, Harvard University.

Miwok specimens to left of verticals, Western Mono specimens to right of verticals. (Photograph by courtesy of Peabody Museum, 1939.)

Top: large ceremonial basket flanked by other baskets of gift or ceremonial type. Across center: twined ware -- left, sieve with stripes; center, fish basket; right, seedbeater over coiled ware circular winnowing tray (perhaps a shaman's), flanked by small bottleneck or "treasure" baskets. Three fine bottleneck baskets with quail plume ornament. Bottom: gambling trays, mush basket type, small mush baskets. On floor, right: stave dice, arrow straightener, pair of hiding bones; center, bone awls and cane arrows; right verticals, looped rocklifters, plain bow, digging stick, and shaman's staff (black).

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[P. 141] Miwok NS 16
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PLATE 1. YOKUTS SPECIMENS, PEABODY MUSEUM, HARVARD UNIVERSITY

227 Large fish, such as salmon, were speared with a two-pronged harpoon. The whole instrument was called piče ´kamni, the handle, ti ´m:s, the hooks or detachable points, mike ´, and the strings, hilu ´s. Speared fish were: e ´p:s [262] (lake trout), poi ´yəm (whale [sic], pike?), and gai ´n:t (salmon).

482 The carrying basket (a ´ñaš) was "used by every woman"; it was carried by means of a tumpline (wi·č: ´n).

The carrying net (wa ´lak) was made and used by men only.

252 Women pounded acorns (pai ´y:n) at bedrock mortars (tin:l), using a large pestle (če'; 412 pa ´lui, Gashowu). Acorn mush was called ki ´n:m (ti ´p:n, Gashowu).

MISCELLANEOUS DATA

276 Tobacco.---Tobacco (pa ´'om) grew plentifully in Dumna and adjacent foothill territory, according to B.W. About April it would be well grown and turning yellow; then old people, men or women, went out to pick it. They pulverized the dried leaves, added water, and formed the paste into a biscuitlike pat called šo ´gən. When dried this tobacco was smoked (pa ´mon, to smoke) in little pipes (su ´ktao, pipe of elderwood (su ´kut]; si ´k:lao, pipe of cane [sik:l]). B.W. has seen stone pipes, but never any of clay.

[787] At night before going to bed, men or women who wanted good health or were seeking supernatural dreams would cause vomiting by eating tobacco and lime. The cake tobacco was pounded up in a special small mortar (koi ´w:š) with burned shells (ok), water added, and the mixture eaten or drunk in very small quantity.

281 Blankets and clothing.---The rabbitskin blanket (xeu ´či; cex: ´na, Gashowu), made of the skins cut in strips and rolled, was made by women. B.W. could give no intelligible description of its manufacture. (Mexican or American blanket was called subo ´n.) Women also "made clothes of deerskin."

481 Ferrying.---Everyone was a good swimmer, 501 but children, sick persons, and goods sometimes had to be taken across the San Joaquin ● 285 River, which is swift and deep. For this pur- 484 pose there were large flat-bottomed baskets called te ´w:č (taskai ´, Gashowu). These were tightly coiled, but were not waterproofed. Infants and goods were placed in these and pushed ahead with one hand by one or two swimmers. A [758] sick person would be laid on a raft of two or three logs; these too were used for goods, but baskets were preferred. Rafts also were pushed by swimmers; the river was too deep for poling.[39]

[39] The Mayfield family were assisted across the San Joaquin River by a group of friendly bathers who, if not Dumna, at least were their close neighbors (Latta, op. cit., 11-12).

586 Divorce was usually caused by sterility, though the usual practice was for the man to have a child by another woman; "he didn't bother to leave his wife unless he disliked her." When a man left his wife, he took only his personal belongings and not more than one horse, if he possessed any. When a couple separated, the parents-in-law usually remained good friends and did not return any gifts which had been exchanged at betrothal.

Death

763 When a death was imminent, a winatum was [624] sent to notify relatives on both sides of the person's family. Kin beyond the degree of first cousin were not usually notified, E.M. thinks, but this depended on how friendly a 764 relative had been with the deceased. A daughter washed and dressed the corpse; if there were no capable daughter, the mother would. This was regardless of the sex of the deceased. The corpse was laid on a pallet or deerskins on the floor, and the mourners all marched around it as doleful songs were sung by the professional corpse-handlers (čowe´'ič). This performance was kept up as continuously as possible for two days.

764 The corpse-handlers had prepared the cre- 767 mation fire and carried the corpse to it. Everyone came, the mourners sitting near by wailing, the onlookers joining in. After two days the corpse-handlers gathered up the bones in a ● [285] basket and buried them. The basket was a special, well-made, "pretty" one of conical shape called ponik. Who made or supplied this E.M. did not know. The corpse-handlers were paid for their services.

765 The period of mourning was indefinite. A widow cut off her hair, stayed quietly near her home until the large mourning ceremony was made, a period of one or two years.

767 The corpse-handlers were not transvestites, so far as E.M. knows. She stated that her paternal grandmother's sister, Woji´lit, was a normal woman, but followed this profession. She thinks that these people "grew up that way," i.e., with a desire "to get rid of the dead." They had no special totemic or dream helper, and "worked" for either moiety.

775 After death the spirit of the deceased went north until it came to a river. If it crossed this successfully, it went up; if it failed, it went down.

766 An unusual burial.--To illustrate an exceptional burial E.M. told the following anecdote which was related to her by Šaha´ma, an old Posgisa man.

This old man had gone out to help the women with seed-gathering. They went toward Table Mountain. Two strange boys were around hunting and, high on the cliffs of the mountain,

[P. 179 b] chuckchansi

252 2-1/2 inches thick. On one side was the cooking depression, about 3 inches in diameter. It was customary to bake these cakes and distribute them to children before the mush-cooking was undertaken.
[855]

251 Uncooked mush could be kept for some time, then cooked as needed. (Thrall saw a basketful on a porch at Picayune which "looked like dried putty." A similar basketful seen by Gayton looked like a mixture for an old-fashioned linseed poultice.)

263 Mush was often flavored by adding pulverized seeds of various kinds.

Seeds.---Seeds were parched on circular
252 trays by adding hot coals and shaking the whole lot vigorously. To separate the coals, the seeds were then sifted through an openwork
● [285 basket (xale). This, said N.W., was the same
415] shape as the basket on which the roasting was done. The seeds were then taken to a mortar rock and pounded in a deep hole. An oil which exuded caused the seed flour to ball. The food was eaten in these balls; it kept a long time. These seeds were got in the valley.

Tarweed [seeds or leaves?] was pulverized and eaten dry that way, or added to manzanita
[263] cider for flavoring. Never was it used to flavor acorn mush. When eaten dry it tended to blow about, causing one to choke. (All present laughed at the informant's description of this.) The tarweed preferred bloomed in July; it "smelled good and was good food." Emma Pumpkin gathered a sackful this summer (1938).

Wild oats grew abundantly in the Coarse
222 Gold region, said J.R. The women gather these
252 seeds in seedbeaters, throwing the grain over their shoulders into burden baskets hung on their backs. Old women worked every day at this; it took about one day to fill the burden basket. The seeds were laid out on rocks to dry; when the husks were ready to drop off they were winnowed. To prepare these seeds for
252 eating, they were roasted on a basket with hot coals, the coals later being sifted out by means of another basket. The parched seeds were then pounded in a bedrock mortar into a flour somewhat finer than cornmeal. The flour was mixed with water, then shaped as small thin biscuits. These were cooked in hot ashes, closely watched to prevent burning. Such cakes were eaten cold or hot, or laid away for the next meal. They were a favorite accompaniment to manzanita cider.

222 A "grass" grows down toward the valley which "blooms red on the end" and produces fine black seeds. These are ripe in late summer (July-August).[88] The plants were pulled up, roots and all, and laid out to dry. The seeds dropped off; those that failed to were stripped
[251] off and the grass thrown away. The seeds were brought home, stored in the storehouse.

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[88] Probably the "kasin" seeds prized by other Yokuts, though this date is a little late for their ripening.

½ Lb. of acorn meal dough. -Awhyst]

scrape the berries into piles; then, dust and all, she put them in a basket.[35] The dust was said to prevent stickiness and dripping while the berries were being handled. The berries were winnowed by being tossed on the same basket, freed of leaves and twigs that fell with them, and taken back to the temporary camp in a burden basket. There they were again picked over for further cleaning and spread on rocks to dry.

When dried the berries were mashed on a special type of stone, thin, flat, and a bit wider than one's hand. The fruit was mashed, not pounded, to loosen the seeds from the skin and dried pulp. The mashing took all day. Then the mass was put on a sieve basket which permitted the seeds to fall through; they were discarded. The desirable part was sacked and taken back to the home village where it was stored in a dry spot. This activity continued for about one week up in the mountains.

When cider was wanted three or four handfuls of the berries were put in a watertight basket about one foot deep. After they had soaked a while they were squeezed with the hands to extract all the dried juices. A sieve basket was then set over the top of a larger watertight basket and the liquor and berries poured in. When the pulp was well drained, more clear cold water was poured over it very slowly. Then the liquid was ready to drink: there was a basket about one foot high, full of cider for the family.

Grapejuice, red in color, was made from crushed wild grapes and drunk at once, said J.R.

A tea was made of "peppermint," the regular mint plant, said N.W., which grew wild. The leaves were gathered, spread on a flat basket to dry. The dried leaves were crushed by hand and stored in a covered basket. Sometimes the plants were dried, then tied in bundles up in the house roof. When wanted, a piece was broken off and put in water. Mike Wyatt said he thought this tea was not a native beverage, although it was made when his people were still living in native-type houses.

A drink which J.R. called dowunnil was first used by the Indians when tortillas were introduced, which was a long time ago (about 1840-1850). It was thought to be "good for something in the stomach." The plant was dried and hung up in an undisturbed spot as the leaves dropped off too readily. A few leaves were taken when wanted and put in water. [This sounds remarkably like the "peppermint tea" described by N.W. The cooling effect of the mint might have been desirable with the strange tortillas. -- A.H.G.]

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[35] The basket was described as 3 feet long and 1 foot wide, but this does not fit any known Yokuts basket type. It may have been an extremely elongated twined basket of the seedbeater type. -- A.H.G.

1: Gayton E-5 (1925-1930) 1948 N529 Yokuts N529
[P. 188 q] Chuckchansi

343 251 [171] J.R. described a granary covered with pine needles which shed water; the top was covered. The contents remained dry all winter. To get at the acorns a little hole was poked at the bottom which allowed them to drop into a sack or basket. This type of granary was used here (Chukchansi) and at Awa´ni· (Miwok).

MANUFACTURES AND UTENSILS

● 265 [272] Baskets.--The following basket types were described and named by the informants N.W. and J.R. Cooking baskets (soiyun) were from 1 to 2 feet deep. Gift and washing baskets (ʼtewis) for the Mourning Ceremony were about 2 feet in diameter at the bottom, 3 feet in diameter at the top, about 3 feet deep. Small basket for pouring washing water (kʼolis ʼtewis) was said to be the same shape as the big basket. Winnowing trays (poʼoˈyi) were flat, circular. Burden baskets were 3 to 4 feet deep, of conical shape; carried by means of a tumpline 2 inches wide. Seedbeaters were about 10 inches across at widest part of their oval, four inches deep, and had a little handle.

Several Chukchansi objects appear in plate 1, Part I, which shows a Yokuts ethnographic collection at the Peabody Museum of Harvard University. These are the bowl-shaped coiled basket with feather and red wool ornamentation (toward upper right, second from top); the open boldly striped twine basket (left center) which was a strainer used when making manzanita cider.

525 Also Chukchansi are the six gambling sticks (bottom center) and the two pairs of hand-game bones lying at the tips of the Chukchansi arrows (bottom horizontal).

352 854 Cradles.--In N.W.'s house there is a grandson, Kenneth, about eight months old (1938). All the following information was derived from that situation, N.W. speaking, Lillian, the infant's mother, interpreting.

A baby's first cradle was not made until it was born "so they would know how big to make it." The work was done by the paternal grandmother. It took N.W. three days to make K.W.'s cradle, which is described below.

The first cradle was about 20 to 26 inches long, the back being a stiff twined frame, just as for the later cradles. The foundation was a single layer of sourberry-bush roots, twined with strips of roots of a water plant.[103] The horizontal twining was in groups of three rows. The foot end was left unfinished or covered with a piece of soft hide. The whole cradle was edged with a chaparral brush (Ceanothus?) binding, bound on with monoxil.[104] [924] 284

[103] "Roots of a river plant with sharp edges like grass, but no flower (carex?).

[104] A plant with purple flowers which "grows north some place" (redbud?).

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 221 b] Western Mono NS 25

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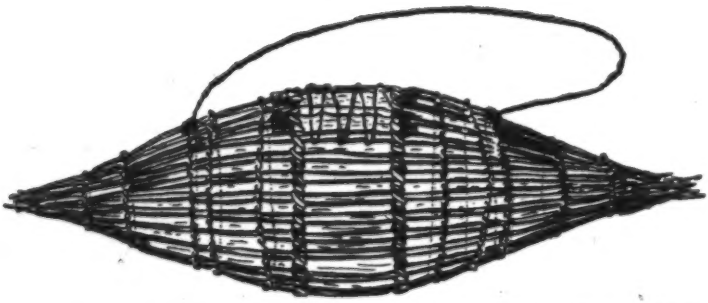

Fig. 1. Pigeon cage. (Schematic drawing after specimen in Kern County Historical Society Museum.)

W Y 252 262 nut was held butt down on a small flat stone and struck on the tip with another stone. A man would not hesitate to use his arrowstraightener for such a purpose, though other comfortable hand-shaped stones were kept about and so used. The shelled acorns were spread out on rocks to dry, then stored in large covered W Y [25] baskets in the house. Acorns to be stored in outdoor bins were not shelled. Acorn-shelling was a favorite evening occupation while some old person would tell stories.

Acorn mush.---The process of cooking was the usual one with hot stones. The stones were Y W [285] of a dull brownish color, hard and fine grained; granite was never used. The mush basket was always twined and invariably carried four horizontal rows of redbud ornamentation (pl. 2, b herein). The hot stones were lifted from the fire with two pine poles, dipped quickly into water to rinse (if ashes adhered, which they rarely did), and dropped into the mush. They were extracted from the mush with a looped mushstirrer made of grapevine.

If people were in some hurry to eat, the whole basket of boiling mush was set into a larger one filled with cold water. If they were in a great hurry, portions of mush were scooped up in individual baskets or clay bowls and lowered into cold water where they immediately solidified. These agglutinated cakes were removed from the water and served from a Y W [263] big tray. They were eaten "just that way."

A plant called paša was used to flavor acorn much.

Ya''ap.---This was a root (unidentified) about 1 to 2 inches long and 2 or 3 inches wide. It was boiled, or baked in ashes, and was sweet, mealy, and fragrant.

Yellowjacket nest.---This was dug up, roasted on a hardwood grating laid over coals, cooled, broken up, and eaten.

Honey.---A bee (?) called in English "big stick bee" (ta'beko'ot, Waksachi) deposited W Y [237] honey all over a tree -- in its crevices, forks, or splits in the bark. This honey, while sticky, was sufficiently firm to be cut away in small pieces. An obsidian blade was used, and pieces obtained might be as large as a man's middle finger. The honey was taken back to camp on leaves, or in a leaf-lined basket, and was eaten immediately "just like candy." B.O. insisted that this was "old time" and that the bees did not come from Spanish sources.

Fish.---These were usually roasted between two layers of hot coals; the bottom layer was covered with sand. Occasionally they were boiled in a pot, but were less favored when so cooked.

Shellfish.---The only type known for eating was the freshwater oyster (river mussel). When whole, with meat inside, it was called ki'puš; the shell itself, which was burned to combine with tobacco, was known as ke'wi. As a food the oysters were used only by the people near Wood-

[p. 225 a] Western Mono NS25

W Y 264 574 from house to house. "He went the rounds and never declined" (S.O.). This procedure was not followed with persons whose intimate connections in a village took them there frequently.

W Y 576 A person approaching a house shouted or otherwise drew attention to himself. To approach quietly was looked upon with suspicion.

The Waksachi greeting used by B.O. was hani ʼiwaʼu ñwa [one word]. This he claimed was wholly aboriginal although the translation is practically the "How are you?" of European culture. The proper or expected reply was nasu ʼmi naü ñwa tsatsa ʼmo (all of us well, or satisfactory).

W Y [888] Any old man might be called [paternal] "uncle" as a term of good-nature and esteem, much as Europeans call any greybeard "little grandfather."

W Y 521 517 During the evening, between supper and complete darkness, or after dark in the winter, people sat around conversing. Some would be engaged in tasks such as acorn-shelling or preparing tobacco for the pre-retiring drink. They talked about their plans for ceremonies, hunting, or other occupations; particularly important were discussions of the seasonal moves to other localities for fish, acorns, seeds, etc. Older people told stories, explained the nature of the world, and prescribed conduct for youngsters. This was the only means of instruction.

W Y [869]

During the evening young people would shell acorns while some old person told stories or adventures. Stories were told only at night. S.O. recalls Etak and Wilolohi as especially fine entertainers.

W Y [525] The hand game was favorite evening entertainment as it could only be played at night, whereas the women's dice game could be played only during the day.

W Y [276] Persons wishing to induce good dreaming would foregather at a house to drink of tobacco and lime.

MANUFACTURES

Baskets

W Y ● 285 [177] According to D. the basketry of the Michahai and Waksachi was exactly like that of their Yokuts neighbors. From other informants we know this to be true, yet it should be pointed out that a mutual exchange has brought this about. The Mono-type cradle of twined rods and fan-shaped shade has been adopted by the Yokuts, while the Yokuts circular coiled sifting tray has been taken over by the Mono in preference to their own twined triangular sifting tray. Several shapes and their uses were distinguished by D. and may be taken as typical for all the foothill tribes, both Yokuts and Mono, between Kings River and Tule River. They are shown in figures 2 and 3, Part I. It may

W Y 285 192 It may be worth noting that, in Michahai at least, there is a special term for the coiling technique, but none for twining; hence, li ʰ·li na (coil I [my coiled basket]) and ti ʼi ʼsi na (make I [any kind of basket twined or coiled]).

W Y 285 192 415 Coiled ware.---1. o ʼsa (Michahai, Wukchumni, Waksachi). This is called "bank" in English, as money, sacred talismans, or any sort of treasure was kept in them. D. said the snake doctors kept their pets in these while in captivity for the Snake Ritual (usually they were kept in cages of open-twined basketry).

2. a ʼmat (Michahai), kača ʼo (Wukchumni), a ʼpo (Waksachi). This was an individual eating and drinking dish. When made with curved sides, it was used by women as a cap under the tumpline.

W Y [292 402] 2a. pi ʼkwo[1] (Waksachi). The woman's basket cap, according to B.O It was never donned save for use under the tumpline.

3. a ʼoki (Michahai). A modern shape which is said to have been invented to keep bread in; in English it is called "bread basket." D. was firm in her statement, which is corroborated by independent Wukchumni information, that it was never used for keeping acorns or any other purpose. Yet it closely resembles the large coiled baskets used for washing and as gifts at rituals. Water was kept in similar baskets for household use.

4. koiyo ʼto (Michahai, Wukchumni). The circular sifting tray, which was about two feet in diameter.

W Y [524] 5. tai ʼwan (Michahai). A circular gambling tray used in the women's dice game. It might be two to three feet in diameter and was distinguished from the sifting tray by its more sharply curved sides and superior decoration.

Twined ware.---6. po· ʼno (Michahai), tapono či (Waksachi). This was the cooking basket. The traditional and only decoration of these was four horizontal bands of redbud. The basic material was called taka ʼti (Michahai; sourberry, D.; chaparral brush, S.O.). When seeds were stored in the house, they were put in baskets of this type and covered with a coiled flat traylike cover called uti ʼʼi (Michahai).

W Y [492] 7. a ʼnaš (Michahai), wo· ʼno (Waksachi). The burden basket, carried by tumpline on the back, was twined of takati and starched with soaproot (to ʼhod, Michahai) liquor.

8. ča ʼphai (Michahai), ta ʼmyuk (Wukchumni), ta ʼneho (Waksachi). This name was used for the handled seed-beater or for a basket of the same shape without the handle. The latter was used as a sieve or for any other purpose for which it proved convenient.

8a. A larger coarser, unhandled variant of the above, also called čaphai, was used exclusively for catching and carrying fish.

W Y [231] 9. Cages of open twine weave were used to house pigeons, rattlesnakes, and possibly other small pets. These had pointed bottoms, were covered with a lid, and hung from trees.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 294] western Mono NS25

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Explanation of Plate 2

Yokuts and Western Mono Specimens, Göteborg Museum

a, Wobonuch winnowing tray, burden basket; b, Wobonuch rock-lifter, mushbasket, cradle; c, Wobonuch fish basket, sieve, individual eating basket; d, Wobonuch pestle for bedrock mortar, handstone, arrow straightener; Wukchumni tobacco mortar and pestle; e, Wakaachi fire fan, Wobonuch soaproot brush and "treasure" basket; f, Wukchumni gambling tray, dice, counters.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 295] Western Mono NS25

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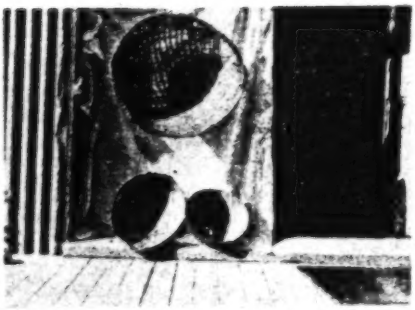

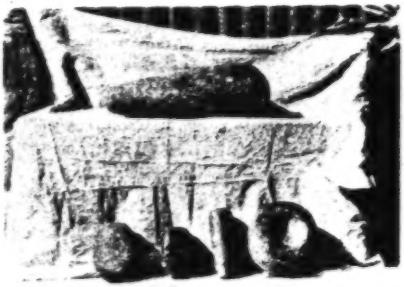

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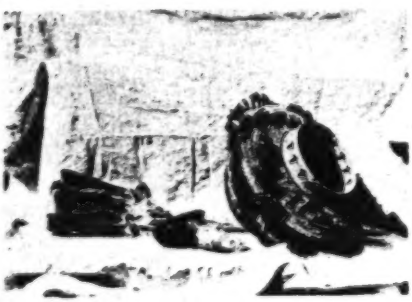

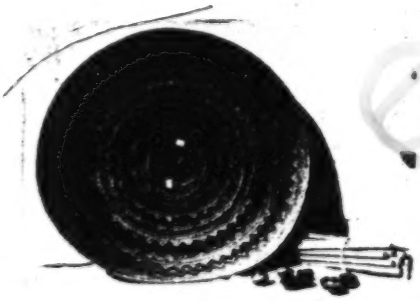

PLATE II. YOKUTS AND WESTERN MONO SPECIMENS, GÖTEBORG MUSEUM

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

that a shout could be heard across it, two warriors famous for dodging stepped forward from each tribe, and each shot one flint-tipped deer arrow from fully bent bow at his companion. Then these men, and they only, shot the crazed antelopes as they circled about within the human inclosure, or sometimes ran until they dropped from fear and exhaustion. Certain of the antelopes with peculiar horns were believed to sing as they ran, with ground owls sitting on their heads. These individuals were spared. The mimic warfare no doubt had magic intent; but the delegation of the shooting to select men served to keep the circle intact, which would certainly have broken under the excitement of every man aiming his arrow at his own quarry.

A safe though far from certain way of hunting bears was to shoot them on moonlight nights from a sort of nest constructed in a tree in their acorn feeding grounds.

When the geese traveled, inflammable brush was piled up, and when the birds were heard approaching on dark, still nights these were suddenly lit. The birds swooped down to the flare, and in their bewilderment were easily killed.

Pigeons were snared in the earliest morning from a comfortable brush booth with a grass window looking out on a leveled platform on which a live decoy was staked and bait scattered. The running noose was on a stick that was slowly shoved through the curtain until a bird stepped within. The victim was smothered with the knee, and the flock soon returned to feed. (Pl. 46.) The decoy was carried in a spindle-shaped cage.

The Yaudanchi capture of eagles was modeled on the principle of their pigeon taking. The hunter lay in a concealed hut of brush. He did not look at his quarry until it was caught, fearing that it flee his glance. Outside were placed a stuffed animal skin as bait and a live hawk as decoy. The trap was a noose fastened to a bent-over pole sprung from a trigger. Before the eagle was killed by being trod on, it was addressed: "Do not think I shall harm you. You will have a new body. Now turn your head to the north and lie flat!" Only men who knew this prayer and the necessary observances undertook to kill eagles.

Of the many ways of capturing fish, a few more unusual ways may be mentioned. Completely darkened booths were built, in which a man lay to spear the fish passing beneath. This device suggests the pigeon snaring and eagle taking arbor. Small fish could sometimes be taken with the scoop-shaped openwork baskets of the women. Poisons were two: ground buckeye nuts with earth stamped into them and crushed *nademe* leaves. Soon after these preparations were thrown into a small stream the fish began to float on the

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

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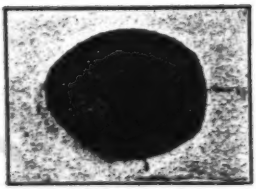

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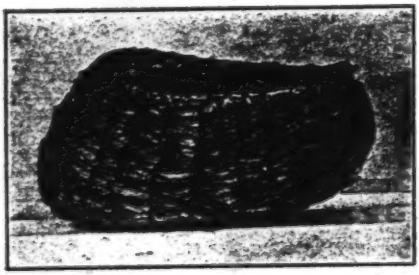

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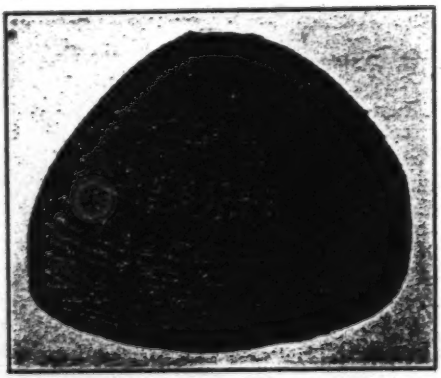

e

YOKUTS BASKETRY

a, Yokuts shouldered basketa with fringe of mountain quail plumes; b, tray for serpentine; c, soft basket of tules; d, seed beater or tray; e, diagonally twined winnower or tray

[p. 530(B)]

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

The sling was used only by boys, but the hill tribes report the Mono to have employed it in war. In the high Sierra it might often be more effective than an arrow.

BOATS.

Boats of bundled tule must have been in use among nearly all the valley tribes. On the tumbling streams in the hills these heavy rafts would have been utterly unmanageable. The northernmost Yokuts, below the Miwok of the hills, must have employed these craft constantly in their broad, sluggish streams and multitudinous still sloughs. They remained longest in service on Tulare Lake. Reconstructed models reveal only a cigar-shaped aggregation of bundles of rush, but the best specimens of old days may have approximated real boats in having raised edges. It can scarcely be presumed that the tule stalks could be bundled or beaten together so tight as to exclude the water; rather their lightness raised the whole mass so high that even the bottom of the hollow was above the water line, the gunwales serving only the convenience of preventing wave wash from entering and load or killed game from slipping overboard. Some of these lake boats carried three or four men in comfort, and could bear a small fire on an earth hearth. In maneuvering among the tules the entire vessel and occupants were often covered over with tules, forming a movable blind for the pursuit of waterfowl.

TEXTILES.

Yokuts baskets are distinguished by one special type, a coiled jar-like vessel with flat shoulder and constricted though sometimes reflaring neck. The pattern is one or more bands in red and black, either diamonds or hexagons or alternate trapezoids. The shoulder was often ornamented with a horizontally projecting fringe of quail crests (Pl. 50), for which red worsted is a modern substitute. These "Tulare bottlenecks," as they have come to be known in the curiosity and antique trade, as well as the quail plume decoration, are not found among the Miwok on one side of the Yokuts nor among the true southern Californians on the other. The two-color pattern is also rare if not lacking among the tribes to the north and south, except among the Chumash. The western Mono, Tübatulabal, Koso, Kawaiisu, and Kitanemuk worked according to Yokuts type, but as they form a fringe of Shoshoneans they have probably derived the art from their lowland neighbors. Kawaiisu technique is, however, as fine as Yokuts. The Chumash also did beautiful work, but the shapes which they gave to their incurved baskets are perhaps less specialized. At least they lack the sharp shoulder and distinct neck which the Yokuts fancied; but their baskets are very small-mouthed.

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

285 171 Chemehuevi forms are rounder, while the farthest traceable affinity is the small spherical basket of the Luiseño and Cahuilla. It is therefore possible to set the focus of the constricted neck forms among the southern Yokuts or the Chumash. As between these two groups, general grade of culture favors the Chumash, while the Yokuts are more central in the distribution of the type. The northern Yokuts, on and near the San Joaquin, do a much poorer grade of work than their southerly kinsmen, as do the Mono. But the Tübatulabal approximate the Tulare-drainage Yokuts in fineness of execution.

292 285 [482] The woman's basket cap was probably Yokuts. At least the southern Yokuts seem to have shared it with their southern and eastern Shoshonean neighbors. This hat was, however, worn only with a load on the back, not habitually. It is curious that the range of the southern California cap coincides with that of the carrying net; of the northern form, with the technique of exclusive twining.

285 [531] The pattern scheme of Yokuts baskets varies from the prevailing horizontal banding of southern California to the diagonal, vertical, and broken effects of Miwok basketry—largely according to locality. Materials and technique are also intermediate. The sewing is close, as in the north; in the Shoshonean area to the south, wider spaced. The foundation is a bundle of *Epicampes* grass, as in southern California; the wrapping, however, is not *Juncus*, as there, but more woody materials: root fibers of sedge (*Carex* or *Cladium*?) for the ground color, *Pteridium* fern root for black, bark of *Cercis* or redbud for red.

Very flat trays were made in coiling. The banded decoration of these brings them nearer Cahuilla and Luiseño ware than Maidu, where radiating designs prevail in flat work. Miwok coiled trays have gone out of use, if they were ever made. Yokuts women employed the finest of their trays for dice throwing; but of course the type was also put to more lowly and daily service. [525]

Twined baskets were more poorly made, but filled a greater variety of needs and perhaps outnumbered coiled pieces in the normal household. The carrying basket was loose enough in texture to be describable as openwork. The interstices were filled with a mucilaginous smear. The commonest of all receptacles is an oval or ovate tray, with a rounding bottom. The term "winnower" describes only one of its manifold uses. The seed beater was but such a tray, one end of which was continued to a handle. Another form of tray was rounded triangular, nearly flat, and wholly or partly in diagonal twining. This has almost certainly been borrowed by the Yokuts from the Shoshoneans on their east. The Tulare Lake tribes must once have possessed a considerable array of special ware in [177]

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

tula, both coiled and twined; but as it made no decorative endeavor it has passed away with the disintegration of the culture of these tribes almost without preservation. (Pl. 50.)

The Yaudanchi affirm that they knew the pitched water bottle of the desert and southern California; but no specimens have survived.

Large baskets were used by the men to ferry women and children across rivers, as by the Yuki. The Mohave employed pots for the same purpose.

Basket patterns had more or less aptly descriptive names, but these were ordinarily without symbolic or religious reference. Some of the names were adjectival, like "zigzag" and "crooked"; others denoted parts of animals, whole small animals, or familiar objects. The significance might be in the pattern as a whole or in the design element. (Fig. 47.) The number of names was not over a few dozen.

FIG. 47.—Yokuts basket designs. Yaudanchi: 1, 2, flies; 3, 4, deer foot; 5, arrow points; 6, 7, crooked; 8, 9, rattlesnake markings; 10, king snake markings; 11, water snake; 12, chuk, wood-gathering crook; 13, tied in the middle. Chukchansi: 14, arrow point; 15, crooked; 16, millipede; 17, king snake markings; 18, rattlesnake markings.

The pattern designations of the Yokuts, like most of the patterns, are generally confined to themselves or their immediate neighbors; but their range, character, and limitation of meaning are typical for all the California Indians, whatever their varieties of techniques, materials, and forms of basketry. Where the matter has been most fully inquired into, as among the Pomo, it is found that design names are often combined, or modified by standardized epithets, which allow of the accurate description of even a complex pattern. It is not unlikely that the Yokuts may prove to have followed a similar system.

The carrying net, *chutis*, into which either a conical basket or a less shapely load could be set, reappears with the Yokuts. It seems to have been of southern California type, light and with detachable supporting band or rope. Pack straps of braided string were also slung around the load and forehead.

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

283 The commonest string material was milkweed, *Asclepias*, called *shah* or *chaka*. The stems were collected in early winter, the bark or covering peeled off, and shredded by rubbing between the hands. The thin epidermis was then removed by drawing the mass of fibers over a stick. The fibers were not separately disentangled, but loosely rolled together as they adhered. Two of these rolls were then twisted tight, on themselves as well as on each other, by rolling on the thigh with the spit-into hand, the other hand holding and feeding the loose ends. The exact process of adding further material is not known; it consisted probably of rubbing together the ends of a mass of fibers, perhaps with some twist. String was two-ply. This is a practically universal rule for California. Except for a few ancient fragments, every piece of three-ply rope or twine in the State is of American provenience or obviously modern.

The other great string material of the bulk of the Californians, wild hemp, *Apocynum*, has not been reported from the Yokuts; but this is likely to be only an oversight. The inner bark of a large shrub called *hoh* was made by the Yokuts into rough rope for withes, pigeon cages, and similar bound articles.

CRADLES OF THE YOKUTS AND OTHER CALIFORNIANS.

854 The Yokuts cradle shows three types. The first is a flat rectangle
352 or trapezoid of twined basketry with a curved hood. The hood is
285 loosely or not at all attached to the top edge of the base, and is carried by a basketry hoop or side supports. (Pl. 40, *h*, *i*, *j*.) This type is found also among the western Mono, and, with some modification, among the eastern Mono. (Pl. 40, *k*.) The latter run the rods of their base across instead of lengthwise, and set a smaller and rounder hood on more snugly. The Miwok (Pl. 39, *a*, *c*, *d*, *e*) and western [171] Mono (Pl. 40, *l*) sometimes use the base of the Yokuts, without the hood. The Washo cradle is substantially that of the Yokuts.

The second type is built up on half a dozen sticks lashed across a large wooden fork. A layer of string-twined tules is put over the sticks. (Pl. 40, *m*.)

The third form is a mat of twined tules, with loops at the edges to pull the lashings through. (Pl. 40, *g*.)

The hooded basketry cradle seems to predominate in the north, the forked stick type in the south, and the soft frameless tule form on Tulare Lake; but this distribution is not altogether certain, and it is possible that the age of the child, or the season of the year, may have been of influence.

[171] The Maidu cradle is often made on a forked framework, and in summer carries a basketry hood. It differs, however, in carrying numerous light transverse rods, in having the ends of the fork united

2: Kroeber E-5 (ca. 1918) 1953
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by a stick loop, and in often lacking the point of the fork. (Pl. 40, *n*, *o*.) None of the Yokuts cradles, clearly, is made for hanging, except perhaps by a strap. The Maidu cradle may be described as a combination of the Yokuts first and second types; among the latter people no such combination or transitional type has been found.

The southern California cradle, so far as known, has a ladderlike foundation of a few short sticks on two long ones. The two long rods are, however, joined at the top instead of at the bottom: that is, there is a loop at the top instead of a fork below. The hood is also a separate hoop of wickerwork. (Pl. 39, *b*.)

The cradle of northeastern California, northwestern California, and the Pomo region is, in spite of much local variation, uniformly of a different order. It is of basketry, not of sticks; it is hollow instead of flat; and a rounded bottom is an integral part of the structure, while the hood is clearly a subsidiary feature. This northern cradle is built essentially for sitting (Pl. 35); that of central and southern California only for lying.

Fig. 48.—Cradle types of central and southern California. *a*, Diegueño, Mohave; *b*, *c*, Maidu; *d*, Yokuts, Kitanemuk; *e*, northern Miwok; *f*, Yokuts, Miwok, western Mono; *g*, eastern Mono. (Cf. Pls. 39, 40.)

The stiff cradles of central and southern California may be schematized as in Figure 48, *a*–*e* being types with a wooden frame, *f*–*g* basketry forms. It will be seen that there is a complete transition from *a* to *d*: *b* differs superficially from *c* only in lacking the point of the latter. Structurally, however, the gap in the series comes between these two, *b* being only *a* with the ends of the frame rod joined, whereas *c* is *d*, namely, a natural fork at the bottom, with an added hoop. That form and consequent use may be of more importance than structural plan, so far as connections go, appears from the fact that *b* and *c* are the winter and summer types of the same people, the Maidu.

Even the stick and the basketry types shade into each other: *b* and *c*, whose transverse rods are close and slender, need only the substitution of a few courses of twining for their underlying hoop or fork frame to become *g*.

In Miwok basketry pieces of type *f*, like Plate 39, *e*, the strengthening hoop seems secondary, but may be a vestige of a former wooden foundation.

The hood is primarily associated with the basketry cradle, but again there are exceptions on both sides that make transitions. *B* and *d* are always hoodless, so far as known, and the hood of *a* is

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structurally separate. *C*, however, is hooded; on the other hand, *f* is found without a hood as well as with it.

Finally, the soft tule-mat cradle of the Tachi (Pl. 40, *g*) is the same in plan as Mono stiff basketry specimens like Plate 40, *l*, differing only in its pliability.

An aberrant type is *e*, so far reported only from the northerly Miwok. The frame is wooden, but distinctive in not being in a single plane. The two rods curl up from the base. This enables them to serve at once as hooks for hanging and as a hood frame. (Pl. 39, *f*.)

The historical interrelations of the several types can only become known through ampler material than is now available, both from within California and without. It is only possible to say that in spite of transitions the basketry and the wooden-frame types seem fundamental.

The former has its rods running longitudinally and is intra-Californian, or rather cis-Sierra, the northern sitting cradle linking with it in this feature of direction of the elements.

The wooden-frame cradle with cross rods is trans-Sierra, including southern California. On this interpretation the hill and mountain Maidu cradle has been shaped by Shoshonean influences from the Great Basin, and the Yokuts have been infiltrated to some extent by the same influences. On the other hand, the Shoshoneans within the Sierra Nevada, such as the western Mono, and presumably the Tübatulabal, follow the Californian method of construction at least as frequently as do the neighboring native stocks.

An interesting minor feature of Yokuts cradles is the expression of sex in the decoration. The Chukchansi put a band of parallel diagonal lines on a boy's hood, a zigzag on a girl's. A number of the Yokuts cradles from other localities show the same designs; several have the twining of the frame analogously disposed (Pl. 40, *h*, *i*, *j*). Diamonds may be the equivalent of the zigzag, in which case a genital connotation is possible. Eastern and western Mono hoods show patterns of the same kind (Pl. 40, *k*); the Washo denote sex in their hood ornamentation; the Miwok may therefore be guessed to follow the principle also; and the Mohave use distinct patterns for boys and girls in the braided bands with which the child is lashed to the frame, besides putting feathers only on a boy's hood. The device is therefore of some geographical extent, and may represent an eastern influence into California. It is of special appeal because of the rarity of symbolic expression in California outside of ritual; and even in ritual the symbolism is scant compared with the habits of the Southwest, the Plains, and the East.

While the same patterns probably occur over a large area with the same symbolism, the sex denotation itself is expressed in other ways

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also. Thus the Nutunutu boy's cradle is said to have the hood fastened only at the sides, the girl's at the top and the base also.

POTTERY.

The Yokuts practice one curious and hitherto undescribed art: that of pottery making. The precise distribution of this industry remains to be ascertained. The southern hill tribes made pots; the adjacent valley tribes appear to have; on the lake tribes there is no information; the Chukchansi and probably other northern tribes did not follow the art. Of adjacent Shoshoneans, the Tübatulabal made pots; some of the western Mono probably did. Outside of these groups there is no record whatever of the industry. It is not connected geographically with the pottery-making area of southern California, which does not come north of the San Bernardino Range, so far as known; and the territorial gap is paralleled by a thorough diversity of the ware.

The distinctive feature of this pottery is its excessive crudeness. It appears to have been made by a rough fitting together of pieces of clay, or a pressing out of a lump: there is no evidence of the coiling and smoothing method. It is doubtful whether the clay contains tempering. Glue, blood, or a sticky substance may have been introduced as binding material. The color is from light to dark gray. There is no slip, wash, or pattern, except now and then a rude incision obviously modeled on a basket pattern. The shapes are indefinitely varied, without approach to standardized forms. A row of the vessels looks as if produced by children or experimenters. (Pl. 51.)

Even the uses are not known. Most of the pots show evidences of employment in the fire. But their purposes must have been special, since the ordinary cooking of the Yokuts is as regularly performed in baskets as among other groups. Small vessels may have been intended for services that we can only suspect. Thus the Yaudanchi affirm that they formerly kept tobacco in hollowed clay balls.

Archaeology gives no information as to the age of the industry. There has been little collecting in the Yokuts area and no systematic exploration. The prehistoric clay cooking balls or sling shots of the stoneless Stockton plains, where the Yokuts Chulamni lived in the historic period, suggest a connection; but no vessels of the same material have ever been found with these. The Clear Lake Pomo sometimes make a minute receptacle by pressing a hole in a lump of clay; but they do not bake these little articles. Evidently there were some anticipations toward pottery making latent in parts of California; and the Yokuts carried these tentative steps

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

swimming the animals and the little cart across without the slightest accident occurring.

"These poor people accompanied us from creek to creek, assisting us cheerfully at each crossing, and in return for their kindness I gave them a portion of our provisions and some dirty shirts, stockings and worn-out boots, which they prized as articles of exceeding luxury, and accepted them with vast satisfaction."

The people described are the Kaweah, who only a few months before had massacred the Woods party and had nailed a portion of Woods' skin to a tree. The reception given the Derby party is in direct contrast to that given the Woods party and lends support to the contention by pioneers that the Kaweah had been abused by that party.

Another interesting account of a similar occurrence, which took place among the Yokuts more than 70 years before the Woods party came to the San Joaquin Valley, is that made in his diary by Padre Francisco Garces when he visited present White River May 3, 1776:

"Those Indians related to me that in their land had they taken the life of two soldiers (who I persuaded myself were deserters), because they were very wicked with the women; adding that they had cut off the hands, had laid open the breast and all the body, had torn them asunder, and scattered the remains. I told them that also did the Espanoles put to death those who were evil-doers, and that presently would they punish two who had done wrong things with Indian women."

THE LAKE PEOPLE

The second culture is related in many ways to the one just presented, and will be known as the Lake Culture. Except at one or two village sites, which were well elevated above the highest lake level, they probably had no permanent dwellings.

Their houses were of a temporary nature and their entire life resembled that of wandering, migratory peoples. The tule mat was used for almost everything in the way of houses and camp equipment. These mats were made by laying the tules parallel to each other with a series of half hitches, or by perforating them with an awl and threading them on strings. In this way long rolls of thin coverings were made which greatly resembled what is known as grass, or reed matting. Some of these mats were used to sleep on. They were used as covering materials to form a shade upon the sun-drenched shores of

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

the valley lakes. They were also used as a covering for the lake houses.

The lake houses are probably the most interesting part of the lake culture. They resembled greatly a long, wedge shaped tent. Poles having a crotch at the top were set in the ground in a more or less straight line at intervals of about eight or ten feet. In these crotches were laid other straight poles which formed a ridge against which other light poles were leaned. Against this supporting frame-work were laid the tule mats, the fiber of the tules standing upright.

We know from many accounts, some of them given by persons yet living, that these lake houses often reached a length of three or four hundred feet and housed a dozen or more families. The openings at the ends afforded entrance to the end apartments, the intermediate apartments having entrances at the side somewhat similar to the flap of a tent.

Transportation upon the water was by means of bundles of tules tied together in the form of rafts. From these, hunting and fishing took place. Upon a mud hearth in the forward end of these rafts, a fire was kindled and game was cooked. In this way, we are assured, parties of three or four Indians would be upon the lake for a week or ten days at a time.

To understand the reason for this difference between the method of living and the construction of houses of the lake tribes and the river tribes, we must consider for a moment the nature of the lakes upon which they lived. The land surrounding these lakes, particularly Tulare Lake, was almost level. The rise or fall of one foot in the level of the water in a lake would move the shore line forward or backward a distance often as great as four miles. When the shore line moved, the Indian village moved.

Other and more frequent disturbances were the violent winds which from time to time swept across the lakes. Three days of heavy northwest wind could drive the waters toward the south and move both shore lines south a distance of several miles. Those Indians living on the south shore of the lake would be awakened in the night by the wind or, if they were not alert, by the water, which would flood their encampment. All members of the tribe would rush about, bundling up the temporary houses and piling them upon tule rafts. Gathering up baskets of acorns and dried fish and all manner of camp equipment, they would float to higher ground. Within a few days

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

133 the lake shore might move back to its original position and the whole tribe would again move with it.

It is of interest to compare some of the characteristics of the river and lake types of culture and see from that comparison how the nature of the territory itself affected not only the habits but the dress and food of those people.

184 The lake Indians lived principally upon clams, fish, water [262] fowl, seeds, and tule roots and were rather despised by the river tribes. The most of their baskets and other equipment, includ- [285] ing baby cradles, were made of tule fiber. They also used [281] rabbit skins to a much greater extent than did the river tribes. They wandered about considerably, having few permanent village sites, following the lake shore in their migrations. They blended closely into their surroundings. "Uncle Bud" Akers, who went to Tulare Lake in 1854 and who knew those Indians as long as they lived in that locality, furnished the following description of them and their surroundings:

136 "Most of the game in the San Joaquin Valley was about
137 the same color as the brush and grass that grew there. In the summer the dry grass turned the plains a light brown or tan color. The salt weeds and brush which grew about the lakes had a light, silvery grey color. The dry tules surrounding the lakes and streams were a light brown, or tan, and hid the green tules which grew in the water. A band of elk or antelope were almost invisible against this tan background, and they knew it. If they were near grass or tule cover they would sometimes keep perfectly quiet. Sometimes we would ride past them without seeing them. A jack rabbit would crouch under a tumble weed until you were within three feet of it before it would bolt and run, or before you saw it.

361 "The Indian camps were also hard to see until you were close to them. The Indians piled salt weed and brush or tules [343] on an elevated framework to make a shade. They also made a 342 sort of tent-house of tules. Several times I have almost passed within fifty yards of these structures without seeing them.

291 "In their native dress the lake Indians were themselves about as well protected from sight as was the game. In the fall 281 and winter they wore rabbit skin capes and hoods. The women wore skirts made of tules or rabbit skin. Sometimes they made these articles of the skins of ducks or geese with the feathers on. The men wore deerskin breech clouts that were about the same color as rabbit skin.

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A typical Yokuts camp. In the foreground is the firepit and the woodpile for outside cooking. In front of the house is the universal tule-mat shade. The oblong tule covered house has a slot shaped smoke hole directly over the door. Beneath the smoke hole is the firepit for indoor cooking and heating. The ends of the house are round. Wahumchuh, eighty-five years of age and last surviving full-blood man from the Yewiumne tribe, appears at the left. He lived in such a house until he was sixteen years of age. He supervised the construction of this camp.

lashed together. These houses were probably not larger than ten by eighteen feet. As in the case of the other temporary houses this house was also covered with tules and was called *Che.*

On Tule River the *Yaudanchi* built their winter house of tules in a cone shape. The house had a hoop at the top to which the poles of the leaning framework were attached and which left an opening for the smoke arising from the fire pit directly below.

[285] The framework was covered by sewn tule mats. The houses were placed in rows with brush covered shades in front. These Yaudanchi houses more nearly approached the tepee of the plains Indians than any other Yokuts houses. The Yaudanchi also built a larger house, which had a ridge, two fire places, and a door at each end; but we have no details of the construction.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Yowlumne

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Wukumchuh, aged 85 and last surviving man from the Yowlumne Yokuts who once lived about present Bakersfield, showing the use of the tule-mat door in a tule-thatched house.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

[p. 104 not Processed]

CHAPTER VI

FOODSTUFFS

GATHERING AND STORING ACORNS

262 222 The acorn, which the Wukchumne Yokuts called *poo'-tus*, was the staple article of diet for most California Indians. It was stored, prepared, and eaten in large quantities and was the most common food consumed by them.

Indians living near the foothills preferred the mountain (Kellogg) acorns to those grown in the valley. The foothill scrub-oaks are smaller, and produce a smaller acorn, which contains a great deal of bitter tannin. The valley oaks bear a large acorn, often three inches in length and almost one inch in diameter. It is sweet, but according to the Indians, does not contain the nourishment found in those borne by the mountain oaks.

The process of gathering and preparing acorns entailed an immense amount of labor. The trees bearing the crop were often several miles distant from the rancheria. An Indian family would consume from one to two thousand pounds of acorns a year. They were carried to the rancheria on the backs of the *mokes* (mo'-kees, women.) The harvesting took place when the acorn crop had nearly all fallen from the tree. At this time, during the years of a good crop, the ground under the trees was almost completely covered with acorns.

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[285] The Indian women used a flat-bottomed basket in gathering acorns. Stooping over, they slipped the basket along the ground and rapidly tossed the acorns into it. When the basket was full, it was taken to a burden basket and emptied. The burden basket was called *ahng'-ush* and was made of light, twined material in the shape of an inverted cone, being about twenty-four inches across the large, upper end and from two to three feet in height. The pointed end of this basket was often thrust into a squirrel hole to hold it upright while the acorns were being emptied into it, or the basket was leaned against a rock, or the trunk of a tree.

[482] When the ahngush was filled with acorns it was placed upon the back of one of the mokes. On top of the load she

[Text continues on p. 107]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Wahnemhet demonstrating the use of ahay'-uth, the cone-shaped Yokuts carrying basket. When loaded it was balanced by means of the shoulders and hips. In her hand she holds hiete, the winnowing tray. The carrying strap is twisted so it will not slip from her head when she is walking.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Acorn granaries and a Chukchimina Indian woman in Squaw Valley about 1890. Note that her hair is bobbed in mourning. The Yokuts Indians were dying in such great numbers during the 1880's and '90's that few photos taken during that period show a woman without bobbed hair. Photo furnished by Jesse G. Pattee.

THE PREPARATION OF ACORNS

252 When she decided to prepare acorns, (*Putus*, poo'-tus), the *moke* (mo'-ke) took a flat bottomed basket (*kot'-chow*) of about half-bushel capacity, placed it under the granary, and pushed apart the grass and branches, allowing the acorns to slide from the granary into it. When the basket was full, the branches and grass were replaced, sealing the granary as it was before.

252 412 The acorns were taken to a cool, shady place and there were hulled. The hulling was done by means of a rock. This rock was generally a nicely shaped stone of a size to be easily grasped in the hand and known to collectors as a mano (Spaniah word for hand stone), but called *ko'-dis*, or *wik'-sid*, by the In-

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Leached acorn flour and equipment for handling acorns. Foreground: Cakes of leached acorn flour, resting in a sand basin, lined with grapevine leaves.

Center, left to right: First: A grass brush over which the hot leaching water is poured. It prevents the flour being washed away when the water is poured.

Second: A soaproot husk brush used in brushing flour from mortars and for many purposes about an Indian camp.

Third: A looped acorn mush stirrer. It is made of a green oak limb and is used for stirring the cooking mush and for removing the cooking rocks from the mush and replacing them in the fire.

Fourth: An acorn flour sifting tray with a cake of leached acorn flour on it.

Rear: Cooking baskets; at the left is shown a lightning pattern, at the right the gopher snake pattern in a milkweed fiber carrying net.

each leaching. Count of the leachings was sometimes kept by laying aside a short stick each time. Leaching was quite successful in removing the bitterness, even from the most bitter mountain acorns.

The leaching being done, the material was covered with a piece of deer skin (*hoey'-in chud'-way*) and left to harden. After it had dried, the cake, or loaf, was lifted from its bed, the leaves removed from the bottom of it, and it was taken to the house.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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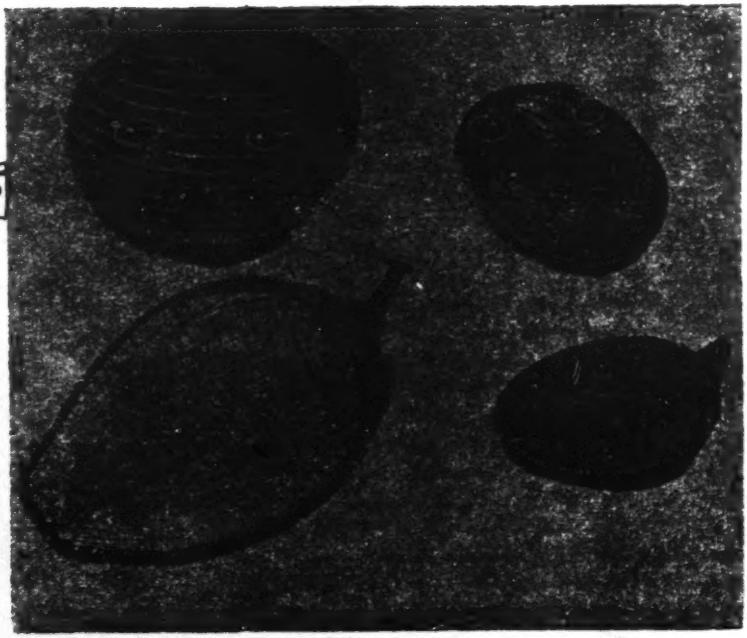

Four Yokuts harvesting and camp wicker utensils. The two at the top are *tuh'-meuks* or simple colanders. Those at the bottom are seed beaters. With one of these in the right hand a woman was able to beat the seeds of oats, wild rice and other standing grasses into a large wide mouthed basket held under her left arm.

mush, the cake was pulverized in a mortar and placed in a basket. Water was added, and the whole cooked quite thoroughly by means of hot rocks (*chak-toy'-tuh*). The rocks were placed in the basket by means of two green sticks used as tongs and removed from it by a looped stick (*shi'-ow*) which was also used to stir the soup. When first removed from the fire by means of the green tongs, the rocks were quickly dipped in a basket of water. The flash of steam caused by this removed from the surface of the hot rock most of the ashes and burned acorn meal with which they were coated. The Wukchumne used soapstone cooking rocks, claiming they were superior to any others. Much of the cooked mush was allowed to harden into a loaf, or cake, of bread.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Wahnomkot, full-blood **Wukchumne** Yokuts from the Kaweah River east of Visalia. She is working in the old salt grass field near Guernsey, Kings County, where the Yokuts tribes have harvested salt from salt grass from time immemorial. On the ground is **tah'-mauk**, generally made of cottonwood twigs and put to innumerable uses. This is a good illustration of features, posture, and the way the salt grass is pulled. The fingers of her right hand are bandaged in order to prevent the grass from cutting them.

mixing them with the refined product. The method by which this is done is extremely interesting, and has several times been witnessed and photographed by the writer.

The most desirable location in the vicinity of Tulare Lake was an area about four miles northeast of Guernsey. This area has been utilized as a harvest field for salt grass for at least one hundred and fifty years, and probably much longer.

Harvesting is done during the later part of July, or the first of August. At about ten or eleven o'clock the globules of salt are partly dried, too dry to be smeared in picking, and too

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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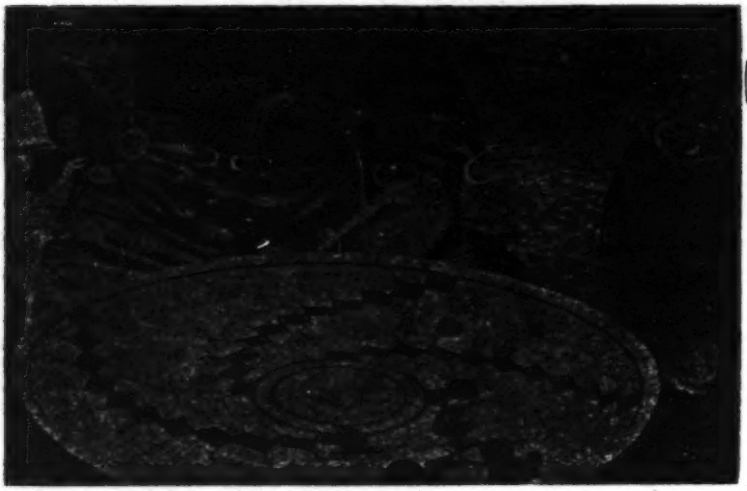

Wohnesakot, Wukchumne full-blood from east of Visalia, throwing dice in the Yokuts woman's dice game. The dice are made of halves of walnuts. She made the game tray she is using. It shows the quail, or brant goose design.

up, the thrower lost one point and the dice were awarded to the two opposing players.

Either of the partners could throw the dice. Considerable skill was thought necessary in throwing them. A *moke* (woman) who could roll the dice most rapidly and who could pour forth the most convincing entreaties was usually accorded this privilege. [777]

A Huuhchuish game has been known to continue without interruption for several days and nights. The most interesting description of this game, as recorded by early observers, was that left by Stephen Powers in 1870. The scene was located on Tule River among the *Yau-dahn'-chi* tribe of primitive Yokuts. Mr. Powers' account follows:

"The Yokuts have a sort of gambling which pertains exclusively to women. It is a kind of dice throwing and is called *u-clm'-us*. For a dice they take half of a large acorn or walnut shell, fill it level with pitch and pounded charcoal, and inlay it with bits of bright-colored abalone shells. For a dice-table they weave a very large, fine basket tray, almost flat, and ornamented with devices woven in black or brown, mostly rude imitations of trees and geometrical figures. 525 [285 531]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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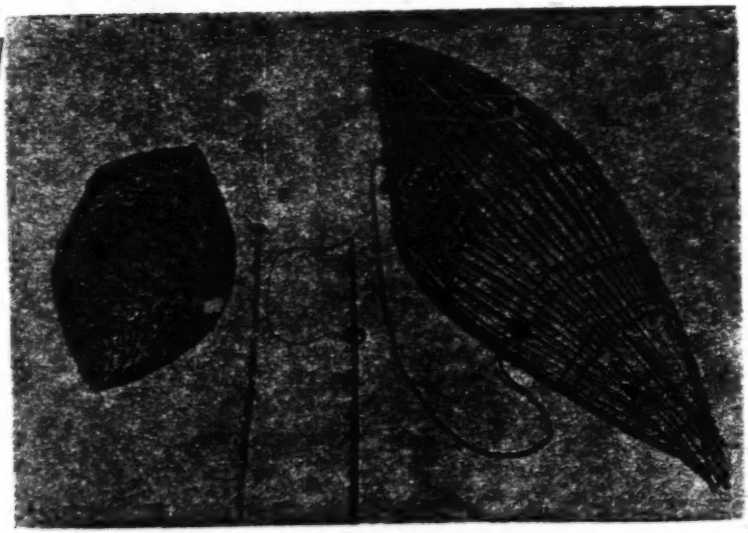

At the left is a **Koyeti**, and right a **Wukchumne** decoy pidgeon cage. At the left center is a **Chukaimina** pidgeon snare, having a spur to prevent the ring from sliding down the pole and closing the loop. At the right center is a **Yowlumne** pidgeon snare. These snares are about six feet long.

tailed and interesting description of this practice was that furnished by T. J. Mayfield, who was raised by the *Choinimne* Yokuts on upper Kings River and who left a more or less detailed account of his experiences. The Mayfield story follows:

"When I was quite young the Indians used to kill many deer by stalking and shooting them with the bow and arrow. For this sort of hunting they prepared the horns and hide of the deer and placed it over themselves.

"The head of the deer was hollowed out and fitted over the head of the hunter. The skin covered the back of the hunter.

"A short stick was carried in the right hand, and was used, when the hunter bent forward, to imitate the forelegs of a deer. The bow and arrows were carried in the left hand.

"They would imitate a deer feeding and rubbing the horns on the brush and many other actions of the deer until they approached quite close to the game.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

CHAPTER IX

BASKETRY

YOKUTS STITCHED BASKETRY

The Yokuts tribes will probably be noted throughout all time for the wonderful basketry which they manufactured. There were several types of this basketry, as well as a number of forms. These baskets, mortars, steatite vessels, round wooden boxes, dried animal bladders and crude bags were the only containers known to these Indians.

Practically all of the Yokuts baskets were of coiled construction. They were not woven, but were stitched together. This process was much slower and more difficult than that of weaving, but produced a basket as strong as though it were made of sheet metal. Many Yokuts baskets were used for cooking and, when completely dry, would become water-tight twenty or thirty minutes after they were placed in water.

The filler, or coiled material, was obtained from a tall grass which grew in clumps along the valley streams and sloughs. To pioneer white cattlemen of the Joaquin this was known as bunch-grass (Epicampes Rigens). It had no joints, being perfectly smooth from one end to the other, and attained a length of more than four feet. The Indians called this material *chaw'-kish*.

The white, or light, straw colored material with which the stitching was done, came from the root of a swamp grass (Cladium Mariscus), which was at one time quite common throughout the entire overflow area of the valley.

Cladium roots attain a diameter of about three sixteenths of an inch and a length of three or more feet. Yokuts women still dig it from the ground by means of pointed sticks. The bark is removed from it and it is split into two, three, or four parts.

The splitting of this material requires great care and much practice. One piece is held between the teeth, the other two between each thumb and the next two fingers. By equalizing the pressure between the two hands and the teeth the root is split into three equal parts. In this way Yokuts women can split a root four feet long into three parts so even in size that the dif-

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Here are shown Yokuts basketry materials and the beginning steps in making a basket. Top left shows the cladium root (cladium mariscus) after the bark has been removed. Top center is a standard sized trade bundle of split root. Top right is a similar bundle of red bud. Center is a long bundle of the bunch grass used as a filler. Bottom left shows the beginning of a basket, using cladium root for both stitching and filler. Bottom center shows the introduction of bunch grass. Bottom right shows the use of bunch grass alone as a filler, also the bone awl used in stitching.

ference cannot be detected by comparing them side by side. If a root is large enough to make four splints, it is first split in two and then the halves are split.

By means of the sharp edge of a rock, or blade of a case-knife, the split roots are scraped smooth and made into rolls of uniform size for use in trading for basket materials that do not grow in the locality where the roots are harvested. This root is called *hupud* (hoo'-pud).

In beginning the basket, short lengths of hupud are twisted into a small coil and stitched together. When the coil becomes large enough, generally about two inches in diameter, the chawkish is introduced. The chawkish cannot be used in beginning the coil because it is too brittle to bend to such a small diameter. The basket is built from this point to the rim by stitching one continuous coil of chawkish to the previous one by means of the grass root called hupud, or by colored stitching materials.

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The material used in stitching to produce the red portion of the designs is prepared from redbud (Cercis Occidentalis). This is the beautiful shrub of the Sierra which is covered with magenta colored blossoms during the months of March and April. The outer wood is stripped from the slender shoots of redbud. These strips are a permanent red on the outside. Their color greatly resembles manzanita bark. The Yokuts name for this material is *ah'-nup*.

Some basketry designs make use of black stitching material. This is the root of the bracken fern (Pteridium Aquilinum) and is the only basketry material which is artificially colored by the Yokuts. It was necessary for the valley Yokuts tribes to secure this root by trade. The root of the fern was stripped into thin pieces. Some reports state that the pieces were then buried in the dark mud of a spring for several weeks. In discussing the coloring of the fern roots with the Wukchumne I found that they used a different method. They boiled the root in a quantity of black mud from the sloughs, or tule swamps. This produced a dead black, which is quite permanent.

I have collected pieces of ancient burial baskets which had been exposed to light for at least seventy years, to find the red and black of the designs almost as bright as those of recent work. The Yokuts call the black stitching material *muh-no'-kits*.

The awl used in stitching was made from the shin bone of a deer. One bone was split and two awls made from it. When completed they were from seven to nine inches long. From time to time the tip of the awl was broken. A new point was formed by whetting the bone on a piece of sandstone. When the length of the awl was reduced to about three inches it was discarded. The Yokuts call this awl *bah'-oak*.

YOKUTS WICKER AND TWINED BASKETS

In addition to the *ahketse* (ah-keet'-se), or baby cradle, the Yokuts tribes made several receptacles of wicker construction. The material used was either young black willow or cottonwood shoots. The *Wukchumne* say that young cottonwood shoots are better than willow, that they do not become so brittle with age.

The most common wicker-work utensil is a sort of colander, or sieve. This is used in sifting the chaff of the dried salt grass after it has been flailed, and in separating trash and

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

285 415 leaves from many food stuffs. The Wukchumne call this sieve *tah'-meuk*. The tahmeuk is also used to drain many foodstuffs in much the same way that the modern colander is used. I have seen Yokuts women washing mustard greens and fungus growths in the tahmeuk. The common shape of this interesting utensil is elliptical. It varies greatly in size. Some are as long as two feet and some less than eighteen inches. They are from ten to sixteen inches across the middle and from four to six inches in depth.

285 When ready for use the cottonwood shoots used are about one eighth inch in diameter. They are spaced from one sixteenth to one eighth of an inch apart. Near the ends of the tahmeuk the shoots are drawn closely together. About the edge of the whole is lashed a rim composed of a cottonwood wythe about three-eighths of an inch in diameter. The ends are moistened and then pounded with a stone. They are doubled under the rim and lashed in place with *hupud* (hoo'-pud).

The small shoots are twined together with hupud at intervals of about one inch. This construction produces an extremely light, but durable utensil. The tahmeuk is still used extensively among the remaining Yokuts.

285 412 A seed beater which greatly resembles the tahmeuk is also widely used. It differs most in that it is fitted with a handle at one end. The handle is formed by lashing together the projecting cottonwood shoots, instead of bending them under, as is done in making the tahmeuk. This utensil is called *yah-mah'-ke tah'-meuk*. It is used to beat the seeds of dry grasses [222] and shrubs into a basket. In this way one *moke* (mo'-ke), or Indian woman, can gather several hundred pounds of seeds in a day.

285 At least two types of baskets are made by twining, instead of stitching. The most interesting of these is a practical receptacle for use in gathering blackberries. This basket is pear shaped, about five inches across the mouth, six inches across the largest portion near the bottom and eight to nine inches in depth. It is fitted with a buckskin handle which is long enough to pass over the head, allowing the basket to be suspended from the neck and to hang slightly above the waist.

[222 413] This arrangement leaves both hands free for gathering blackberries and speeds up the work considerably. The Indian woman can crawl through the blackberry vines, draw them

[Text continues on p. 160]

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Wahsoimkot about 1928. In her right hand she holds a basket made to be suspended from the neck, leaving both hands free to pick blackberries. Leaning against her is a boy's baby cradle. In her left hand is the flexible cradle, made before the child is born and for use until the other is completed.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

285 [222 481] within reach with a hooked stick, and rapidly pass the berries into the basket.

They call the blackberry basket *chaw'-mish*. It is built upon a foundation of cottonwood twigs and is formed by twining. The cottonwood twigs extend upright. The twining materials were looped about them and passed around the basket from the bottom to the top. The materials used in stitched work are also used for this twining. The tan hupud is the principal material, although bands of red are used to decorate the basket. The red material is the ahnup described before. In an emergency such baskets are quickly fabricated of tules.

285 415 During the season when the baskets are not in use for gathering blackberries they are used about the Indian houses as containers for materials of all sorts. They are generally [353] hung from the ceilings or walls, and in them you will find much the same sort of materials that you will find in a sewing basket among white people. There will be odds and ends of stitching materials, small strings, worn out bone awls, stones for sharpening the awls, periwinkle shells, bits of abalone shell, beads, soaproot brushes and other such articles too numerous to mention. Rattlesnake doctors even collected their rattlesnakes in them. They are one of the most useful utensils made by the Yokuts.

A twined burden basket is used for gathering acorns and for carrying all sorts of other materials. This basket is made in the shape of a cone, being pointed at the lower end, about two feet deep, and eighteen inches across the mouth. The lower point is generally reenforced by an extra layer of twining material, or a piece of buckskin. The twining of the basket is done in the same manner and the design is applied in the same way as in making the blackberry basket. They call this basket *ahng'-ush*.

[222] In gathering acorns the Indian women stand the ahngush against a log or tree, or place the point of the cone in a squirrel hole. The acorns are gathered and placed in another basket. They are then emptied into the burden basket. When the burden basket is filled it is placed in a string carrying-net much like a fish net, or it is supported upon the back of the Indian [482] woman only by means of a strap passed across her forehead. In some tribes the word for load, or burden, is *shaw'-nil*.

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YOKUTS BABY CRADLES

One of the most interesting phases of Yokuts culture is their method of handling and carrying their children. Many of the things to be discussed here vary slightly among the Yokuts tribes, but the general scheme was once much the same from the Cosumne River and Martinez on the North to Tehachapi and Paleta on the south. By far the most effective Yokuts artifacts, at least as regards the rearing of children, are these baby cradles, or baskets. The most detailed account concerning this interesting piece of equipment was that furnished by a prominent family of the *Wukchumne* tribe.

Among the Wukchumne it was customary to hold a ceremony, or meeting, practically identical with the modern baby shower. Even though many of the primitive customs have held over into civilized life, and persons who have studied primitive life are more or less accustomed to such parallels, it comes as a surprise to everyone to find that such an interesting custom was so well established among the primitive inhabitants of the San Joaquin Valley.

The materials used in the construction of the baby cradle varied slightly among the numerous tribes. The Tachi, who occupied the north shore of Tulare Lake, wove a very interesting cradle of tule. It was soft and pliable and formed a good mattress for the child. The *Choinok* and *Wolasi* attached a tule pad to the bed of a wicker cradle.

The plains and foothill tribes made a very light and strong cradle. Some tribes used slender willow wythes. In the construction of their cradles the Wukchumne used cottonwood twigs.

Among the Wukchumne two separate cradles were used for each child. The first cradle was sometimes made by the mother, although a grandmother, or some other old lady of the tribe, often made it and sold or presented it to the mother. This cradle was about thirty inches in length and so woven of cottonwood twigs that it could be rolled up like a piece of matting, the cross stitching being made of pliable cladium roots. This was a temporary cradle and the baby was kept upon it for a matter of three or four weeks.

As soon as the child was born, materials were assembled and construction started on a large, permanent cradle. This was not possible before, because the design used in weaving the

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Left: A Wukchumne infant cradle, used until the larger cradle was completed, and then tied high in an oak tree until the child learned to walk. Right: A Yaudanchi infant cradle with hoop to support the covering over the face of the baby.

cradle for a boy differed from that used in weaving a girl's cradle.

At the time when construction of the large cradle was started, all the grandmothers and older women of the immediate family group held a meeting. They called upon the mother and her child and brought with them all sorts of materials, including toys and play-things for the baby.

The mother never constructed the larger, permanent cradle. No reason is given for this, except that the mother had many other duties in caring for the child. It is said that the maternal grandmother took a considerable pride in preparing this permanent cradle and I have observed this always to be the case among the Wukchumne.

When the temporary cradle was discarded it was rolled tightly and tied securely, high in an oak tree. It is explained

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

by Indians that this was done in order that nothing would happen to the child. 854

After the child had learned to walk, the small cradle was taken down and burned. It was thought if anything happened to the small cradle the child would never learn to walk. This accounts for the scarcity of the temporary cradle in basketry collections. 352 285

As soon as the permanent cradle was begun, the grandmother devoted all of her time to its construction and had generally finished it at the end of a week or ten days. It was from two and one-half to three feet in length, about eight inches wide at the bottom and about eighteen inches wide at the top. This flat, rigid base was constructed of two layers of cottonwood twigs. The upper layer was placed length wise and the under layer cross wise. These twigs were lashed together in an interesting pattern by the common stitching material, the cladium root called *hupud* (hoo'-pud).

It is the design used in lashing the twigs together that determines the difference between a cradle for a boy and a cradle for a girl. The design generally extends across the cradle diagonally. In the boy's cradle the design always ends at the opposite side pointing in the same direction in which it it starts from the first side. It may have several off-sets or "Z" shapes like our conventional form for lightning, but it ends in the same direction in which it starts. 854 352 285 531

The design for the girl's cradle may start out the same as for the boy but changes its direction and ends in the opposite direction from which it starts. Whether this feature of the design is to be understood as a Yokuts recognition of any well fixed feminine characteristic will have to be settled by the reader.

The flat, rigid base, which has just been described, is strengthened and covered at the upper end by a sunshade made of the same material. This sunshade is formed in a very interesting way. A hoop of several cottonwood twigs is sprung across the framework, about eight inches from the upper end. From a point in the middle of the top of the base other cottonwood twigs spread in a fan shape to the hoop, where they are securely lashed. The sunshade is then stiffened by stitching with hupud in the same design which characterizes the base. 854 352 285

In order to make this shade sun and water proof, the pulp from the common soap root is pounded to a paste and applied

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

to the outside with the hands. This paste dries to a hard, smooth surface and shuts out both sun and rain.

The upper part of the sunshade, which is attached to the top of the base like the handle of a fan, forms a convenient handle, or grip, by which the cradle and the child can be moved from place to place.

Along the sides of the base are loops of buckskin. In the old days soft moss or grass was placed under the child. It was then wrapped in a small rabbit skin blanket, or buckskin. The child was then placed upon the cradle and lashed to it by means of a long milkweed fiber strap, laced through the buckskin loops at the side and criss-crossed over the child much as a shoe is laced.

From the sunshade directly over the child's face are hung short strings of beads, at the ends of which are suspended bits of abalone shell, periwinkle shell, or keyhole limpet shell. These are not to be played with—only to be looked at. The hands of the child are strapped down to its sides under the wrappings.

Originally the Indian mother carried this burden with her by means of a milkweed-string band which fastened to the base of the cradle on either side at a point near where the hoop of the sunshade was attached. This looped band was placed across the forehead of the mother and the burden was distributed between her forehead, back and shoulders. In some tribes the name for this cradle was *shaw'-nil*, the same as the word for burden.

Some of the foothill tribes made a crude baby cradle of a forked stick with other sticks lashed across it by means of sinews, or string.

Yoi'-mut, the aged *Chunut* (Choo'-noot) Yokuts quoted on other subjects, furnished the following most interesting story concerning one of the articles carried with all Chunut cradles:

"Chunut mothers kept a piece of *kodis* [soapstone, steatite, or talc] hanging from the sunshade of the baby cradles. When they changed the baby they scraped some powder from this soapstone to put on the baby. It was just like your talcum powder."

I have in my collection a forked-stick Yokuts cradle which was collected from the *Yaudanchi* Yokuts about 1868 by Wilco Mentz, of Porterville, and which has had one of these soapstone talcum powder cans suspended from it for more than eighty years.

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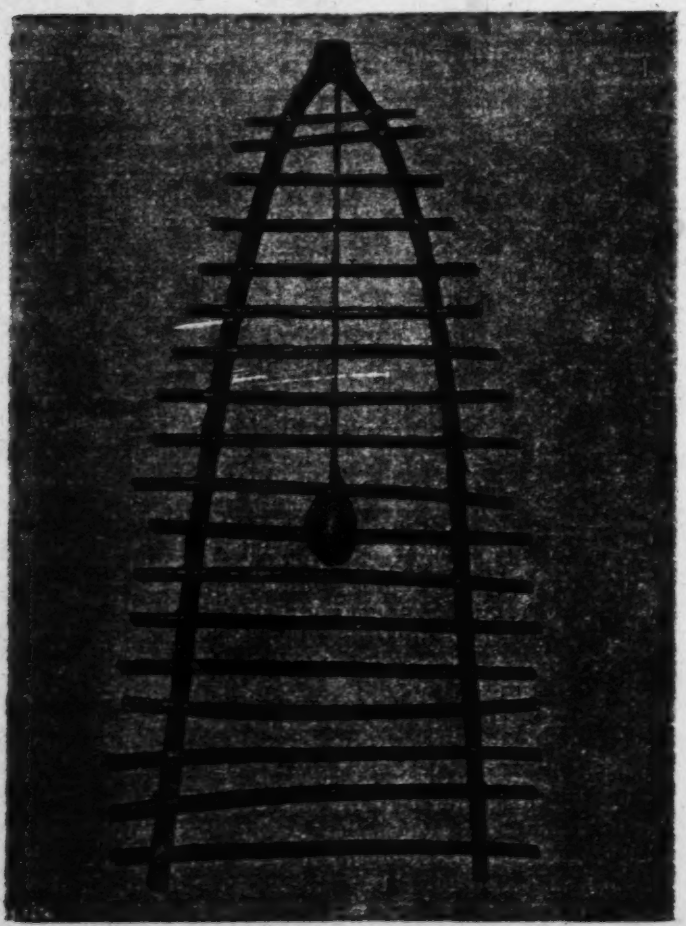

Type of baby cradle used by the Koyeti Yokuts on Tule River. Suspended by the string is a piece of soapstone from which was scraped talcum powder to put on the baby when the grass or moss diaper was changed. This cradle, together with the soapstone, was collected in 1908.

Verily, there is nothing new under the sun.

The *moke* (mo'-ke), or Indian woman, could leave her baby cradle leaning against a bank, a rock, or a tree, and be gone for hours with the certainty of coming back and finding the child

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Left: A Wukchumne Yokuts baby cradle with milkweed fiber tie-strap and hemp fiber carrying-strap. Suspended at the right of the sunshade is a steatite reel-shaped stone from which talcum powder was scraped for use when changing the baby. Right: A Nutunutu Yokuts baby cradle padded with tules.

exactly where she left it. It is said by persons who have been close observers that it was often customary to keep the children on these cradles long after they were able to walk. Why the white persons who first settled this country failed to appreciate and appropriate this effective article of primitive culture is beyond understanding.

Probably more interest is shown by whites concerning the Indian name for baby cradle than concerning any other thing relating to Indians. Among the Wukchumne and other Kaweah River Yokuts tribes, the name was *ahketse* (ah-keet'-se). Almost every other tribe of Indians in the western hemisphere had a different name for this article. So did they have different names for *moccasin, squaw, tepe,* and every other primitive article.

The word squaw, was adopted from the Narragansett Indian dialect. *Papoose, chuck* (meaning food), *moccasin* and *tomahawk* were taken from an *Algonquin* dialect. Tepe was

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CHAPTER X

ARTISTRY

YOKUTS BASKETRY DESIGNS

177 285 531 The most disappointing thing, and one which must be first considered in approaching the subject of basketry designs, is the influence which white "collectors" have had upon the prehistoric designs. Among the many collections which have been made throughout the eastern part of the San Joaquin Valley there are many forms of basketry which have been made to please enthusiastic, if not wise, collectors. This *white* influence reached its greatest depth when Indian basket makers were required to cover whiskey bottles and demijohns with stitched basket materials, copying designs from calico prints.

285 531 The rattlesnake was in olden times probably never shown with a head or tail. Only the pattern on the back of the snake was copied and very cleverly applied to the basket. The snake designs are probably most common of any and are certainly among the most realistic. The stitching of the coiled basket reproduces in a most life-like way the scales of the snake and allows these patterns to be reproduced, although in conventional form, quite true to life. The most common snake forms used are the rattlesnake, king snake, gopher snake, garter snake, and water snake.

The rattlesnake design was often used in connection with the "bottle neck" basket, which was at one time so common on Kaweah, Kern and Tule Rivers. A conventional ant, water skater and quail design is often used in connection with the rattlesnake. The full history of this design is obscured in the past. Quail is represented by a black mark resembling the feathers from the top of his head. Four rectangles form a perfectly charming water skater. Ants are represented by small square dots in groups, or in lines resembling ant trails.

285 531 825 776 The Yokuts rattlesnake was private secretary, or *Winatun,* for *Tihpiknits,* the Yokuts Saint Peter. It was the duty of the rattlesnake to crawl about and locate the Yokuts who were not behaving as good citizens. He sent their names to Tihpiknits, who called them in.

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285 531 825 773 774 Quail was the champion of fair play. Water skater was a messenger, or Winatun. Ant was the person who meted out punishment. As far as the Yokuts knew, for his size, the ant had the most painful sting of anything about them. The story that has been preserved of designs incorporating these three elements is that there was once a bad rattlesnake who turned in the names of good people who were called in by Tihpiknits. Quail learned of this and told the water skaters, who carried the word to the ants, who stung rattlesnake to death and ate him.

285 531 Deer tracks (*hoey'-in trut*) are often used in basket designs and are many times mistaken by collectors to represent arrow points. They are generally represented by two small slender triangles having the adjacent sides parallel and placed close together.

Caterpillars, or worms, are shown by zig-zag lines, often in close series, representing the march of great masses of worms, or in small straight lines about the edge of the basket and representing individual worms.

Sometimes lightning is shown upon the basket and resembles very closely our own conventional form for lightning. The pine tree is represented by a series of triangles placed above each other and gradually diminishing in size toward the top.

Wild geese are very cleverly represented, the brant being easily recognized, although a peculiar conventional form is used. A small rectangle, the outline of which is worked in black, has across the center of it a broad perpendicular dark band which brings to mind quite clearly the marking on the wing of the goose. Extending from one corner of the rectangle at an angle of about forty-five degrees is a straight line which terminates in a short horizontal line representing the head. A series of these figures begins at the bottom of the basket and spirals to the right or left toward the top, illustrating not only the individual bird, but in a very effective way the formation so commonly assumed in flight. Because of the sloping lines above this design, foothill Yokuts generally refer to it as quail, instead of goose.

The bow and arrow is also represented in conventional form, generally by small triangular shapes which really picture arrow points and represent, according to basket makers, not only the arrow, but the bow as well. I have only once seen

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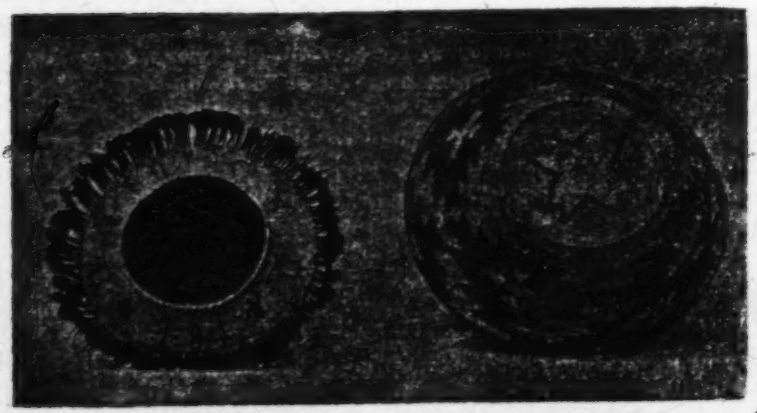

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Left: Top view of a Wukchumne creation basket with quail top-knot feathers as decorations around the edge. It was made to be burned at the periodic pageant which reenacted the creation of world. The stitches are very fine, some almost fifty to the inch. In the bottom is Choltus, the morning star. The world was finished just as the morning star was beginning to fade. Around the side is a design taken from the pattern on rattlesnake's back. Rattlesnake was the agent of Tihpiknits, Yokuts St. Peter. It was his business to crawl about spying on bad people whose names should be sent in to Tihpiknits. Around the rim are the bow and arrows, sent to the earth by the sun when he went to live in the sky. To the right is the new moon. The world was created during the new moon. Next is Yohk, the watersnake, first water dweller. Next is Sahwukit, the turtle, who brought up from the bottom of the universal water the mud from which the world was made. Next is Wynees, the first man, swimming up from the water. Next is bow and arrow, repeated. Then is Tsuh-tsih, the oak tree, first tree in the Yokuts world. Next is turtle repeated. Last is meh-mis (blackberry), the first fruit. Right: On the bottom is Choltus, the morning star. This is another creation basket, one of the most difficult patterns the author has seen. It shows Eagle, the Yokuts Creator, in white, with a red border, which creates another eagle, the white spaces between the four eagles making another eagle. It is an all over pattern which dovetails so as to allow of no waste space. The stitches are fine, about thirty-two to the inch.

among the old baskets a representation of either the bow or arrow in a form resembling their true shape.

Houses are often shown by a small low triangle which makes no attempt to show either the smoke opening in the top, or the door-way. Houses may be shown in any color.

Among the many traditions about basketry designs which are, according to the experience of this writer, clearly in need of correction is the one which states that purposely none of

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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531 the old Indian basketry designs were made complete, or without imperfections. Old basket makers say that there is no foundation whatever for the above statement. They say that broken places in the design or places where parts of the design do not match exactly are simply the result of a lack of skill or forethought on the part of the basket maker. When, over a period of weeks and often months, one has watched the developing of the basketry design while the tedious work has been in progress, he can readily appreciate the above explanation.

The Indian woman begins her design at the base of the basket. As coil after coil is added and the circumference of the rim of the basket where the design is being worked out becomes larger, no small amount of ingenuity and mathematics is necessary to make that portion of the design near the top of the basket conform to that which already has been worked out on the smaller portion near the bottom.

In all of this work no pattern is used. The upper portions of the design are left entirely to the imagination and it is often quite difficult to bring them into proper position upon the flaring side of the basket. This whole matter would be comparatively simple if the basket were the same size at top and bottom, but new stitches must be added every few inches as each coil is added, and this not only increases the surface area upon which the design is placed, but also makes necessary with each coil a new count and division of stitches.

In the solving of this whole problem an Indian woman will display a truly amazing amount of ability, not only in placing the design itself, but in the mere mathematics of dividing the various portions of the basket into equal parts.

The writer has in his possession a small basket, illustrated in this chapter, which is about eight inches in diameter and two and one-half inches deep. This basket is of very close weave, having certainly more than 30,000 stitches, spaced about thirty to the inch. Upon its flaring sides are reproduced four conventional eagle designs, about which is quite elaborately worked out a wide border in two colors. The borders about the eagles make more similar eagles which dovetail so that the design covers the basket completely, and there is on the entire side of the basket no space not involved in representing an eagle. The entire design is worked out from start to finish without a single flaw and shows perfect uniformity, not only

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in excellence of stitching, but in mathematical regularity of detail. 285 531

In addition to those designs which are worked into the basket itself, it is often embellished with the feather top-knots of quail. This was particularly true of the bottle-neck, or *aw'-suh*, of the Yokuts of Kaweah, Tule and Kern Rivers. In addition, various kinds of beads were sometimes fastened to the outside of the baskets. [237]

It must be appreciated by readers that in an article of this nature, which has already exceeded proper limits, the subject of basketry designs can scarcely be approached. In addition to the forms already discussed there are countless numbers of designs reproducing almost every possible geometrical form. Some of them, we are told by basket makers, are used simply because they are *pah-yo'-me* (pretty).

It is of interest to note here that at least some of the basketry designs were used on the fabric made by the southern Yokuts. These tribes, the Tulamni, Tuhohi, Hometwoli and Yowlumne made many large circular mats or bags of fabric which probably were used for many purposes about their camps. However, the only uses of which we have definite knowledge are two, as shrouds for dead bodies and as linings for the sand basins in which acorn flour was leached. These fabric mats or bags were started of fiber thread much as were the blackberry gathering baskets and were twined, not woven. One piece of such fabric shows the rattlesnake pattern, worked in black thread. Although all existing specimens of Yokuts fabric have come from graves and are partially decayed, several designs can be distinguished on them. Material used in making Yokuts fabric is thought to be the fiber of the native hemp and/or milkweed. [286] [764] [172] [824] [283]

How the native woman was able, without pattern or example in nature, to bring into being countless numbers of beautiful designs and, with no tools other than a bone awl and a sharp rock, to form them into a basket, can never be comprehended by the layman until he has watched that work for many weeks. The artistic taste and mathematics involved in this one Indian art alone shows more plainly than anything else we know about them that the mind of the Yokuts Indian was equal to many many things far beyond anything that we have appreciated. [412]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

285 517 It is a statement of bare fact to record that the baskets made by the Yokuts Indian women are the very finest known to have been made by machine or by hand by any people of any race in the history of the world. The Pomo Indians of Lake [171] County made a basket covered with colored feathers, and probably made more kinds of baskets, but they were no finer in workmanship than those made by the Yokuts on Kings, Kaweah, Tule and Kern Rivers, and probably, in prewhite days, throughout the San Joaquin. Not only are the stitches in some baskets as fine as sixty to the inch, but color combination, texture, shape and design are completely fascinating and present some of the finest conventionalized designs known to the art world.

285 531 A Yokuts Indian woman of primeval days, seated on a deerskin or tule mat under a spreading valley oak, would have been as little expected to turn out a beautiful work of art as any known primitive person. One is both privileged and amazed who has seen them at work amongst the litter of an Indian camp. Their persons and clothing were often ragged and soiled, their homes and furniture were of the most meager, primitive kind. There was little in the immediate surroundings to suggest anything used in designing a Yokuts basket.

But the Yokuts woman saw far beyond her camp. Without a drawing or pattern of any kind she placed upon her basket the most pleasing and delightful representations of mountains, birds, butterflies, deer, quail, streams, lightning and the heroes of her tribal myths and stories. This was all done, remember, [412] with a crude chipped-stone knife and a bone awl, not another tool of any kind.

Beginning at the bottom of a curved, flaring basket, the Yokuts woman placed the first colored stitches of a design, complicated and involved beyond the imagination and memory of most white persons. She carried this design through to completion without a pattern or drawing.

One must also appreciate that for pictorial purposes stitched basketry has the limitations of the mosaic, the cross-stitch, or the loop used in hooking rugs. It was not possible to reproduce most objects in their true shape and form. They were conventionalized. A triangle could represent a deer's track, an arrow point, or a flame. A realistic reproduction of a quail topknot stood for quail: the shape that the inch-worm assumed in traveling represented it. Butterfly was sometimes represented by a wavy line suggestive of its flight. Four small

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

rectangles construct an amusingly accurate fly, and resemble a head-on view of an airplane. Five small rectangles create an unforgettable water-skater. Small wavy or straight lines are caterpillars. Small groups, or long, winding strings of small squares represent ants. 285 531

In the selection of her materials, in the dyeing, preparation, and assembling of them, in the accurate weaving of myths and historical events into the designs on her baskets, it can truly be stated that the Yokuts Indian woman was one of the most versatile artists in the world. She was mythologist, craftsman, weaver, designer, historian, mineralogist, botanist, mathematician, and poet. 285 517 531

YOKUTS ART

The mere mention of Yokuts Indian art seems a challenge to most persons. The thing farthest from their thought is that a Yokuts Indian could have developed anything which in any way could be termed true art. This is not the case. It is true that many of the old forms of Yokuts art are gone, perhaps never to be known, but it is due only to our destructive powers that there is not today more evidence of several forms of their art. 517 531

The Yokuts were developing to a point where art was appearing in their manufacture of pottery. True, this had advanced only to the stage where simple ornamental forms were being attempted and where borders and designs were being applied with the thumb nail or a sharp stick. But the beginning was there and there have been found within Yokuts territory several pieces of pottery which were banded with interesting designs and which probably were not traded into this territory. Border designs were also cut into the large steatite cooking vessels around the opening in the top.

Indian art was applied to many articles. The small apron on the front of the breech clout was sometimes painted with designs symbolic of the local tribe, or clan. The colors and pigments used were the same as those used in rock painting, being earth colors mixed with the juices of plants, most commonly chilicote oil, mixed with the juice of the tall milkweed, the fiber of which was used for making string.

Of all the art common to the many Yokuts tribes, that which has made famous the Yokuts *moke* (mo'-ke, woman) throughout the world, has been applied to their several forms of

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

basketry. Although this topic has been introduced in the preceding chapter, an entire volume would not exhaust it. It is necessary to consider it further here. The designs are always simple in nature, often symbolic and never unpleasing to the eye. There is nothing in connection with Indian basketry designs which conflicts with the well observed rules which underlie the white man's design. The striking effect of some of the most simple primitive designs is amazing—sometimes perfectly fascinating.

At the present time there are a few Yokuts basketry artists still at work. Their work resembles more the old unspoiled primitive forms than that of almost any other Indians, because the Spanish did not often penetrate to the eastern portion of the San Joaquin Valley, and the old mode of life was last overthrown there. There is now only one unspoiled Yokuts basket maker on the Kaweah River. There is also one on the San Joaquin River, as well as one or two on Kings River.

The old Yokuts seldom attempted anything but symbolic or conventional forms. Figures attempting to show birds, animals or persons in their true shape, were seldom used. This was remarkably good taste and shows a deep understanding of true art on the part of the basket makers, for they were working in a cross stitch type of reproduction and could not smoothly develop the form of a deer or a bird.

Some of the most common designs used on basketry represented the various snakes common to the San Joaquin Valley. These designs lent themselves very nicely to a coiled construction and their patterns proved well adapted to the materials used.

The Indian painted his spear, his bow and his arrows. The colors used were blues, reds, yellows, blacks and whites, juices of berries and other plants being used. The designs were genrally geometric. The marking on the arrows served a very practical, as well as artistic purpose. It was of importance to the hunter to be able to identify his own arrows. This was not only in connection with the proving of ownership of an arrow which had been shot into the brush, but also to prove who had killed certain game. Various colored lines were banded around the shaft and foreshaft of the arrow in the same way that modern archers mark their arrows.

Another form of art, probably as well developed as any other, had to do with the painting of the faces and bodies of the

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

Canyon. The last known of these was held on the south Fork of Tule River in the spring of 1890.

To understand something of what was in the Yokuts mind when the Rattlesnake Dance was performed, it is necessary to know the position occupied by the rattlesnake in Yokuts mythology. No full-blood Yokuts I have ever known would kill a rattlesnake. Several pioneer white settlers have told me that when poisoning squirrels, Yokuts workers had refused to kill rattlesnakes, which was considered a part of that work. *Tawpnaw,* an aged Wukchumne, once told me that if a rattlesnake entered a Yokuts house the owner would vacate and turn the house over to the snake.

I believe that most of us would act like the Yokuts, at least until we could find a club and kill the snake. But, I was assured by *Tawpnaw,* no Yokuts would dare to kill a rattlesnake, because the rattlesnake could make him die, even without biting him.

From Tawpnaw, *Yoimut* (a *Chunut*), *Wahumchah* (a *Yowlumne*), *Pahmit* (a *Dumna*), *Ichow* and *Pohut* (*Wukchumne*), *Dr. Bob* (a *Chukaimina*) and perhaps a dozen other aged Yokuts were learned the facts concerning Yokuts beliefs about rattlesnakes.

In Yokuts religion the rattlesnake is the private secretary of *Tihpiknits,* keeper of the Yokuts hereafter. He is more than that. He is a combination of Saint Peter and an F. B. I. operative. It is his business to crawl about and spy on the Yokuts. When he finds a bad Yokuts he sends his name in to Tihpiknits, who immediately calls him in.

The above is illustrated in the Yokuts story of the visit to Tihpiknits *Pahn* (Land). When the husband of the dead wife returns to this world he violates Tihpiknits' orders to keep secret what he has seen. As soon as he disobeys orders he is stricken dead by a rattlesnake.

A folklore story concerning the designs on the typical Yokuts bottlenecked baskets, used by medicine men to nest rattlesnakes, relates to the fatal power of the rattlesnake. On some of these baskets appear the pattern of the diamond back rattlesnake, as well as designs, representing ants and water skaters. Around the edge of the basket are the top-knot feathers from the heads of quail.

In Yokuts mythology the quail is the champion of fair play. The ant, for its size, is noted for dealing out the most punish-

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Yokuts bottle-neck baskets used by Rattlesnake Doctors for holding their rattlesnakes. The three baskets at the top carry the rattlesnake design. Lower left: Coral king snake design with water skaters. Lower center: Gopher snake design with ant trails around the neck. Lower right: Gopher snake design.

ment. The water skater is a mythological messenger, or *Winatun*. The Yokuts story is that once a bad rattlesnake sent to Tihpiknits the names of some good people with the result that they died. The quail learned what had been done. They told the water skaters, who carried the word to the ants and the ants stung the rattlesnake to death and ate him. Placed on rattlesnake baskets, these characters are a subtle warning to all rattlesnakes.

The Yokuts Rattlesnake Dance was a spring ceremony. 796
It was performed for the purpose of overcoming the supernatural power of the rattlesnake, as well as to insure against snake bites during the coming summer. Although the actual practices during the ceremony varied somewhat between Tejon Canyon and the San Joaquin River, one hundred and fifty miles to the north, the objectives and the ceremonies themselves were similar.

Believing that the statements of aged Indians who participated in rattlesnake dances would be of most interest to readers, I shall devote most of the remainder of this chapter to such

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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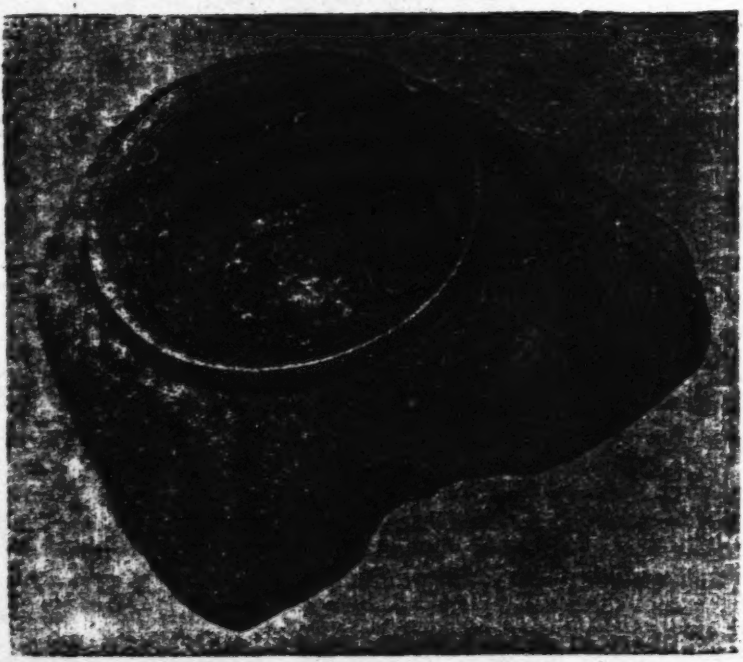

A Wukchumne Yokuts wooden mortar with basket hopper.

159 The valley acorns would not keep very well. We could not
251 store them in granaries like we did the mountain acorns. We had to take off the hulls as soon as we gathered them. Then we drilled holes in them and put them on strings. We hung the strings of acorns in the house. We thought that it was the smoke that kept the worms from eating them.

159 My people used some rock mortars to pound seeds in, but
412 they used lots of wooden mortars, too. My mother had a big wooden mortar when I was a little girl.

When an oak tree would fall down the Chunut women would take the bark off of the trunk and make mortars in the top of it. They used coals to burn holes in it. I remember lots of trees with three or four mortars in them. The women would sit on the tree trunk and pound acorns and seeds.

159 In the long tule house each family had its own door. You
342 could not go through the next place unless you knew it was all
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3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

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Lewaynit and Hawtoy, dressed in native costumes made by their grandparents, Ichow and Wahnemkut. Lewaynit was a good student. During her first year in school, where all other children were white, she completed two years of work in one and stood at the head of her class. She died of tuberculosis while in her Sophmore year at Exeter High School.

5: Gayton E-5 (1925-1927) 1929

NS29 Yokuts NS29

Western Mono NS25

Y W 323

cooking. Even with this comparatively short firing they give forth a metallic sound when struck with the knuckles. The potter said they would "ring like a bell" if fired the customary length of time.

Y W [412]

When the firing was finished the pots were removed from the embers with a pair of long sticks. The pots are often red hot, and are again set along the edge of the fire pit so that the cooling will be gradual.

Among the Wobonuch and Waksachi Western Mono and Entimbich Yokuts this completed the work and the pots were ready for use. The Patwisha (Balwisha) Western Mono, Wükchumni, and perhaps other neighboring Yokuts groups finished the vessels with a coating of thin acorn mush. Sufficiently fired pots were removed from the fire while at high heat and were immediately painted inside and out with acorn mush applied with a soaproot brush. The mush "sizzled and baked right into the pot." Three or four coatings were given. This process was said to prevent the clay from soaking up liquids, "sweating," and breaking. A similar coating is applied to cooking baskets to make them watertight. The Wükchumni Yokuts called this "doctoring" the pot.[6]

Y W [285]

The Patwisha and Wükchumni procedure in pottery-making differed in two other points from that of the Kings River tribes. The first was in the preparation of the clay. It was not used directly after being taken from the ground, but was dried in the sun or near a fire. When thoroughly dried it was put in a large mortar hole (one no longer used for food-grinding) and pulverized with a pestle. The resulting dust was sifted through a twined basket, such as an old seed-beater, and returned to the mortar hole.[7] A small amount of water was poured over the ground clay, and all stirred about to make a heavy paste. If the clay seemed too smooth a little sand was added at this time. The mixture was lifted out onto the surface rock, and pounding and kneading proceeded as above.

Y W 171 184 323

The second point of difference was in marking the pot to insure safe firing. Vertical lines were drawn on the outside of the pot, not with the soapstone polisher as among the Wobonuch, but with the

[6] Tol'in na kl'wie nim kl'am el'ei, doctoring I pot my now done.

[7] Kroeber, Handbook, pl. 38d, illustrates a beater of this type. Openwork-twined baskets, made for sifting pulverized materials such as manzanita berry flour, etc., were used in this case. When the Wobonuch made pottery from dried clay, which was only in summer or fall, the finely ground clay was extricated by winnowing, according to Dr. T. T. Waterman, whose photograph of the process is shown in pl. 97b.

7:Powers J-5 (1871-1876) 1877 NS29 Yokuts NS29

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Figure 41.—Baby-basket, acorn-baskets, sifters, &c.

[Facing p. 376]

7:Powers J-5 (1871-1876) 1877 NS29 Yokuts NS29

226 long, in which they cruise timidly about near the shore. There is a margin where the bottom is almost level and the waves run light; but the middle of the lake is of immense depth, and the billows sometimes lash themselves into oceanic proportions.

172 412 Around the lake and on King's River one will often find a family using a tolerably well-made stone mortar. They always admit that they did not manufacture these implements, but happened on them in digging or found them on the surface, and that they belonged to a race other than their own. They sometimes have the ingenuity to improve on them by fastening a basket-hopper around the top to prevent the acorns from flying out. On the west side of Tulare Lake these mortars are very numerous, and of course they must have been carried thither from the mountains.

285 On Tule River I saw the process of basket-weaving. Instead of willow twigs for the framework or warp, the squaw takes long stalks of grass, (*Sporobolus*); and for the threads or the woof various barks or roots split fine—pine root for a white color, willow bark for a brown, and some unknown bark for a black. The process of weaving is like that heretofore described; [237] the awl or needle was the sharpened thigh-bone of a hawk.

525 The Gualala style of gambling prevails all over the State, but the Yokuts have another sort, which pertains exclusively to the women. It is a kind of dice-throwing, and is called *u-chu'-us*. For a dice they take half of a large acorn or walnut shell, fill it level with pitch and pounded charcoal, and inlay it with bits of bright-colored abalone shells. For a dice-table they weave a very large, fine basket-tray, almost flat, and ornamented with devices woven in black or brown, mostly rude imitations of trees and geometrical figures. Four squaws sit around it to play, and a fifth keeps tally with fifteen sticks. There are eight dice, and they scoop them up in their hands and dash them into the basket, counting one when two or five flat surfaces turn up.

525 777 The rapidity with which the game goes forward is wonderful, and the players seem totally oblivious to all things in the world beside. After each throw that a player makes she exclaims *yet'-ni* (equivalent to "one-y"), or *wi-a-tak*, or *ko-mai-éh*, which are simply a kind of sing-song or chanting One old squaw, with scarcely a tooth in her head, one eye gone, her face

13:Riddell E-5 (1949) 1955 NS29 Yokuts NS29

796 825 osity he ignored her caution and joined the other small boys following one of the doctors. The doctor went to Rocky Hill near Porterville where rattlesnakes live among the rocks. When they approached the spot where the snakes were, the doctor told the boys to stay back and not frighten the snakes. In order not to miss seeing the capture of the snakes, José climbed up on a boulder. Here he saw that the doctor was equipped

[285] [315] [531]

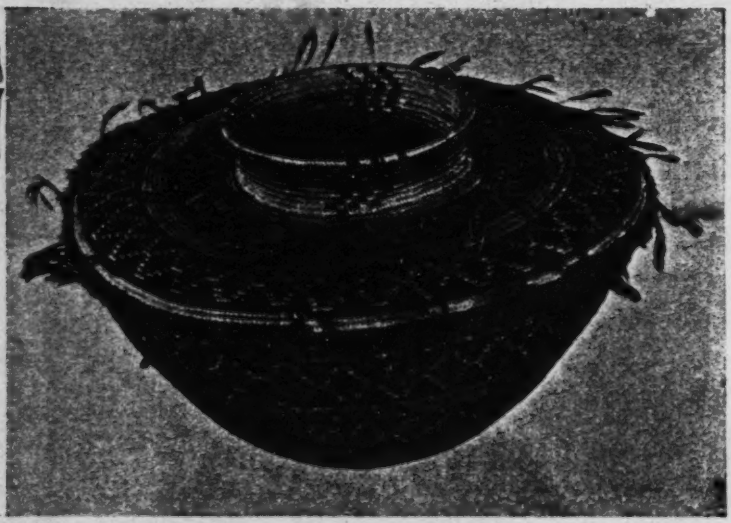

FIG. 5—Rattlesnake Basket of the Yokuts Indians.

with a small whistle, a bottle-shape (shouldered) basket, (Fig. 5) and an eagle-down string. The doctor began blowing on the whistle until some rattlesnakes began to crawl out toward him.

The little boy on the rock became transfixed with fear and curiosity as the snakes approached the shaman as if they were hypnotized. The doctor threw the string of eagle-down behind (?) the snakes to keep them from escaping (?), and then bent down and picked them up and put them into the necked basket. [789]

During the rattlesnake ceremony, José reported, a pit was dug into which the rattlesnakes were placed and some sort of cover (brush ?) was put over the pit. All of the people in attendance would then go past the pit and place one foot over the pit of snakes, but not quite near enough to be struck. As they did this, they threw money onto a blanket lying by the